

113925  
SEARCH REQUEST FORM

Access DB# \_\_\_\_\_

## Scientific and Technical Information Center

Requester's Full Name: Maunie Baker Examiner #: 76689 Date: 2/10/04  
Art Unit: 1624 Phone Number 30 2-0805 Serial Number: 101026636  
Mail Box and Bldg/Room Location: Room 2A01 Results Format Preferred (circle): PAPER DISK E-MAIL  
Mail Box 2A05

If more than one search is submitted, please prioritize searches in order of need.

\*\*\*\*\*

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: \_\_\_\_\_

Inventors (please provide full names): Please see attachedEarliest Priority Filing Date: 12/2000

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Please search the compounds  
of attached claim 12. Note  
that the claim contains compounds  
denoted by structural formula AND  
by chemical name.

Please also run a separate invention  
search.

Thank you!

\*\*\*\*\*  
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	Type of Search	Vendors and cost where applicable
Searcher: <u>Arnold Schulwitz</u>	NA Sequence (#) _____	STN _____
Searcher Phone #: <u>272-2532</u>	AA Sequence (#) _____	Dialog _____
Searcher Location: _____	Structure (#) _____	Questel/Orbit _____
Date Searcher Picked Up: <u>2/10/04</u>	Bibliographic _____	Dr. Link _____
Date Completed: <u>2/10/04</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: _____	Fulltext _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: _____	Other _____	Other (specify) _____

9. A multifunctional linker molecule according to any of claims 1 to 8, characterized in that  $\text{FUNC}_1$  and  $\text{FUNC}_2$  independently of each other are connected to X via N, C, S, or P, and are selected from the group comprising

-NH, -NHCO, -NHCONH, -NHCSNH, -NHCONHNH, -NHCSNHNH, -NHCONHNHCO, and -NHCONHNHCO in case of a connection via N;

-CONH, -CONHNH, and -CONHNHCO in case of a connection via C;

-SO<sub>2</sub>NH, -SO<sub>2</sub>NHNH, and -SO<sub>2</sub>NHNHCO in case of a connection via S; and

-PO<sub>2</sub>NH, -PO<sub>2</sub>NHNH, and -PO<sub>2</sub>NHNHCO in case of a connection via P.

10. A multifunctional linker molecule according to any of claims 1 to 9, characterized in that  $\text{CON}_1$  and  $\text{CON}_2$  connected to  $\text{FUNC}_1$  and  $\text{FUNC}_2$  via NH or CO, independently of each other are selected from the groups comprising

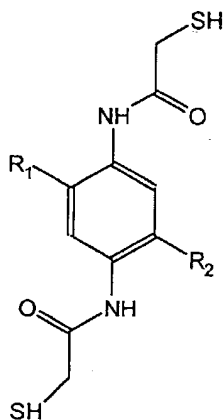
-(CHR)<sub>n</sub>COOH; -(CHR)<sub>n</sub>NC; -(CHR)<sub>n</sub>NH<sub>2</sub>; -(CHR)<sub>n</sub>NHCS<sub>2</sub>H; -(CHR)<sub>n</sub>OPO<sub>3</sub>H<sub>2</sub>; -(CHR)<sub>n</sub>OSO<sub>3</sub>H; -(CHR)<sub>n</sub>PO<sub>3</sub>H<sub>2</sub>; -(CHR)<sub>n</sub>SH; -(CHR)<sub>n</sub>SO<sub>3</sub>H; -CSOH; and -CS<sub>2</sub>H in case of a connection via NH; and

-(CHR)<sub>n</sub>COOH; -(CHR)<sub>n</sub>NC; -(CHR)<sub>n</sub>NH<sub>2</sub>; -(CHR)<sub>n</sub>NHCS<sub>2</sub>H; -(CHR)<sub>n</sub>OPO<sub>3</sub>H<sub>2</sub>; -(CHR)<sub>n</sub>OSO<sub>3</sub>H; -(CHR)<sub>n</sub>PO<sub>3</sub>H<sub>2</sub>; -(CHR)<sub>n</sub>SH; and -(CHR)<sub>n</sub>SO<sub>3</sub>H in case of a connection via CO; and

where R is H, CH<sub>2</sub>OH, or CH<sub>3</sub> and n is 1 or 2, and ionic forms thereof.

11. A multifunctional linker molecule according to claim 10, characterized in that  $\text{CON}_1$  and  $\text{CON}_2$  independently of each other comprise branched molecular structures.

12. A multifunctional linker molecule which is selected from the group comprising 1,4-dimercaptoacetamidobenzene of the general formula



$R_1/R_2 =$   
CH<sub>3</sub>  
ce

Search  
this  
structure

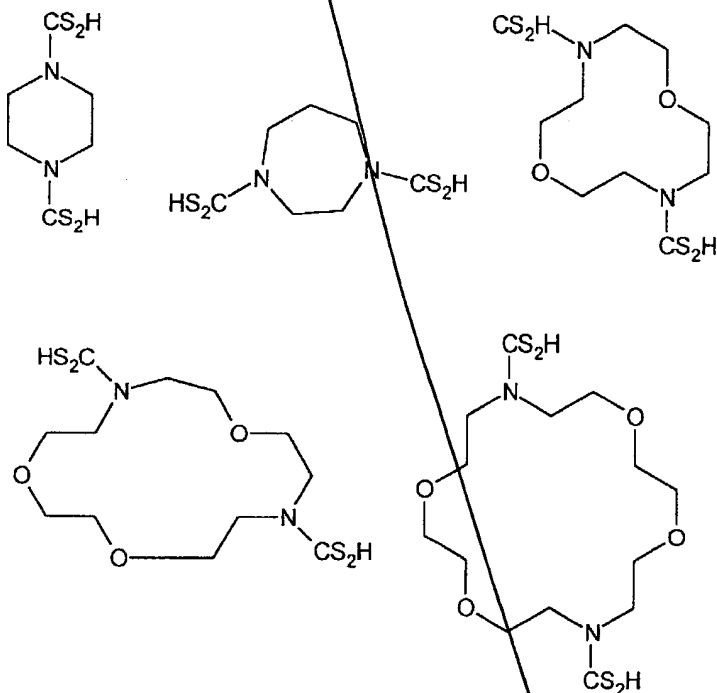
AND

see next P8

in which  $R_{1,2}$  is independently selected from  $CH_3$  and/or  $Cl$ , 1,4-dimercaptoacetamidocyclohexane, 1,4-dimercaptoacetamido-9,10-anthraquinone, 1,5-dimercaptoacetamido-9,10-anthraquinone,\*1,8-dimercaptoacetamidooctane, 1,4-dithiocarbamatobenzene and 1,4-dithiocarbamatocyclohexane.

*Search these compounds too!  
(different than structure on previous page)*

13. Multifunctional linker molecule selected from the group comprising



14. 1-, 2-, or 3-dimensional assembly of nanostructured units comprising a multifunctional linker according to any of claims 1 to 13, wherein the conductivity of the assembly is determined by the structure of the multifunctional linker.

15. Assembly according to claim 14, characterized in that the nanostructured units are selected from the group comprising nanoparticles, like metal, semiconductor, or core/shell semiconductor nanoparticles, nanowires, nanotubes, nanobelts, and electrodes.



# **STIC Search Report**

## **Biotech-Chem Library**

**STIC Database Tracking Number: 113925**

**TO: Maurie Garcia**  
**Location: REM/2A01/2A05**  
**Art Unit: 1639**  
**Wednesday, February 11, 2004**

**Case Serial Number: 10/006636**

**From: Deirdre Arnold**  
**Location: Biotech-Chem Library**  
**REM 1A64**  
**Phone: 571-272-2532**

**Deirdre.Arnold@uspto.gov**

### **Search Notes**

Examiner Baker:

Please note the following concerning the search results for case 10/006,636:

- The inventor search query returned a number of records that may not be relevant to this case; these are marked with✕.
- All of the named compounds with one exception were searched with a query based upon the structures indexed in the CAPLUS record retrieved with this application number; the query retrieves exact compounds and mixtures, but not derivatives. The remaining named compound was searched with a substructure query which retrieves derivatives; this was done because a chemical name search for this compound in Registry was not successful.
- Some of the Marpat retrievals resulted from incomplete iterations and, therefore, may not be relevant.

If you require clarifications or further information, please contact me.

Thank you for using STIC services.

Regards,  
Deirdre Arnold

This search was supervised by Paul Schulwitz.

=> file zcaplus

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FILE COVERS 1907 - 11 Feb 2004 VOL 140 ISS 7  
FILE LAST UPDATED: 10 Feb 2004 (20040210/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> file hcaplus

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FILE COVERS 1907 - 11 Feb 2004 VOL 140 ISS 7  
FILE LAST UPDATED: 10 Feb 2004 (20040210/ED)

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FILE CONTAINS CURRENT INFORMATION.

*Headings  
for  
files  
used*

LAST RELOADED: Feb 6, 2004 (20040206/UP).

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L26*Wessels*

6 SEA FILE=HCAPLUS ABB=ON PLU=ON (("WESSELS J"/AU OR "WESSELS J A"/AU OR "WESSELS J C"/AU OR "WESSELS J C M"/AU OR "WESSELS J F"/AU OR "WESSELS J G H"/AU OR "WESSELS J H"/AU OR "WESSELS J J"/AU OR "WESSELS J M"/AU OR "WESSELS J M C"/AU OR "WESSELS J N"/AU OR "WESSELS J P"/AU OR "WESSELS J P H"/AU OR "WESSELS J S C"/AU OR "WESSELS J T"/AU OR "WESSELS J W"/AU) OR ("WESSELS JURINA"/AU OR "WESSELS JURINA M"/AU OR "WESSELS JURINA MARGARETE"/AU)) AND (?LINKER? OR ?CHARGE?)/TI *title keywords*

L27

*Ford*

25 SEA FILE=HCAPLUS ABB=ON PLU=ON (("FORD W"/AU OR "FORD W B"/AU OR "FORD W C JR"/AU OR "FORD W C L"/AU OR "FORD W CHRISTOPHER L"/AU OR "FORD W D"/AU OR "FORD W D A"/AU OR "FORD W D ANDREW"/AU OR "FORD W E"/AU OR "FORD W E III"/AU OR "FORD W F"/AU OR "FORD W G F"/AU OR "FORD W G KENNETH"/AU OR "FORD W H"/AU OR "FORD W HUTSON"/AU OR "FORD W K"/AU OR "FORD W K JR"/AU OR "FORD W KENT JR"/AU OR "FORD W L"/AU OR "FORD W M"/AU OR "FORD W N"/AU OR "FORD W O JR"/AU OR "FORD W P"/AU OR "FORD W P J"/AU OR "FORD W R"/AU OR "FORD W R JR"/AU OR "FORD W T"/AU OR "FORD W W"/AU) OR ("FORD WILLIAM"/AU OR "FORD WILLIAM E"/AU OR "FORD WILLIAM B III"/AU OR "FORD WILLIAM C"/AU OR "FORD WILLIAM C JR"/AU OR "FORD WILLIAM C L"/AU OR "FORD WILLIAM CHRISTOPHER LIBERTY"/AU OR "FORD WILLIAM CLIFFORD JR"/AU OR "FORD WILLIAM D"/AU OR "FORD WILLIAM DOUGLAS"/AU OR "FORD WILLIAM E"/AU OR "FORD WILLIAM ELLSWORTH"/AU OR "FORD WILLIAM F"/AU OR "FORD WILLIAM FRANK"/AU OR "FORD WILLIAM FREDERICK"/AU OR "FORD WILLIAM G"/AU OR "FORD WILLIAM G F"/AU OR "FORD WILLIAM GERALD"/AU OR "FORD WILLIAM GERALD F"/AU OR "FORD WILLIAM H"/AU OR "FORD WILLIAM L"/AU OR "FORD WILLIAM M"/AU OR "FORD WILLIAM MARK"/AU OR "FORD WILLIAM P"/AU OR "FORD WILLIAM R"/AU OR "FORD WILLIAM R JR"/AU OR "FORD WILLIAM T"/AU OR "FORD WILLIAM W"/AU OR "FORD WM E"/AU OR "FORD WM K JR"/AU OR "FORD WM L"/AU OR "FORD WM P"/AU OR "FORD WM W"/AU)) AND (?LINKER? OR ?CHARGE?)/TI *title key words*

L28

*Yasuda*

5 SEA FILE=HCAPLUS ABB=ON PLU=ON ((YASUDA/AU OR "YASUDA A"/AU OR "YASUDA A K"/AU) OR "YASUDA AKIO"/AU) AND (?LINKER? OR ?CHARGE?)/TI *keywords in*

L29

31 SEA FILE=HCAPLUS ABB=ON PLU=ON (L26 OR L27 OR L28) *combine sets*

*title only*

=&gt; d 129 bib abs 1-

YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS' - CONTINUE? (Y)/N:y

YOU HAVE REQUESTED DATA FROM 31 ANSWERS - CONTINUE? Y/(N):y

L29 ANSWER 1 OF 31 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 2003:933520 HCAPLUS  
TI Gold-nanoparticle/organic **linker** films: self-assembly, electronic and structural characterisation, composition and vapour sensitivity  
AU Joseph, Yvonne; Krasteva, Nadejda; Besnard, Isabelle; Guse, Berit; Rosenberger, Miriam; Wild, Ute; Knop-Gericke, Axel; Schloegl, Robert; Krustev, Rumen; **Yasuda, Akio**; Vossmeier, Tobias  
CS Materials Science Laboratories, Sony International (Europe) GmbH, Hedelfinger Str. 61, D-70327 Stuttgart, Germany  
SO Faraday Discussions (2003), Volume Date 2004, 125, 77-97

CODEN: FDISE6; ISSN: 1359-6640

PB Royal Society of Chemistry

DT Journal

LA English

AB Gold-nanoparticle/organic films were prepared via layer-by-layer self-assembly using dodecylamine-stabilized Au-nanoparticles and poly(propyleneimine) (PPI) dendrimers of generation one to five (G1-G5) or hexadecanedithiol (HDT) as linker compds. TEM and FE-SEM images revealed that the bulk of the films consisted of nanoparticles with diams. of about 4 nm. XPS was used to study the chemical composition of the films. The C 1s and N 1s signals of

an AuPPI-G4 film were interpreted qual. according to the dendrimer structure. The absence of the nitrogen signal in case of an AuHDT film indicated that the dodecylamine ligands were quant. exchanged during film assembly. About 76% of the sulfur atoms were bound to the nanoparticles, the remainder being present as free thiol (S-H) groups. All films displayed linear current-voltage characteristics and Arrhenius-type activation of charge transport. The conductivities of the AuPPI films decreased exponentially over approx. two orders of magnitude ( $6.8 \times 10^{-2}$  to  $1.0 \times 10^{-3} \Omega^{-1} \text{ cm}^{-1}$ ) with a five-fold increase of the dendrimer generation number. Dosing the films with solvent vapors caused their resistances to increase. Using different solvent vapors demonstrated that the sensitivity of this response was determined by the

solubility

properties of the linker compds. Microgravimetric measurements showed that absorption of analyte was consistent with a Langmuir adsorption model. These measurements also revealed a linear correlation between the elec. response ( $\Delta R/R_{ini}$ ) and the concentration of absorbed analyte. The absorption of d4-methanol from a saturated vapor atmospheric was studied by

neutron

reflectometry with an AuPPI-G4 film. This measurement indicated condensation of methanol on top of the film and a uniform distribution of the analyte across the film thickness.

L29 ANSWER 2 OF 31 HCAPLUS COPYRIGHT 2004 ACS on STN \*

AN 2003:674446 HCAPLUS

DN 139:370740

TI Measurements of the branching fractions of **charged** B decays to  $K\pi$  final states

AU Aubert, B. Barate, R.; Boutigny, D.; Gaillard, J.-M.; Hicheur, A.; Karyotakis, Y.; Lees, J. P.; Robbe, P.; Tisserand, V.; Zghiche, A.; Palano, A.; Pompili, A.; Chen, J. C.; Qi, N. D.; Rong, G.; Wang, P.; Zhu, S.; Eigen, G.; Ofte, I.; Stugu, B.; Abrams, G. S.; Borgland, A. W.; Breon, A. B.; Brown, D. N.; Button-Shafer, J.; Cahn, R. N.; Charles, E.; **Day, C. T.**; Gill, M. S.; Gritsan, A. V.; Groysman, Y.; Jacobsen, R. G.; Kadel, R. W.; Kadyk, J.; Kerth, L. T.; Olomensky, Yu. G.; Kral, J. F.; Kukartsev, G.; LeClerc, C.; Levi, M. E.; Lynch, G.; Mir, L. M.; Oddone, P. J.; Orimoto, T. J.; Pripstein, M.; Roe, N. A.; Romosan, A.; Ronan, M. T.; Shelkov, V. G.; Telnov, A. V.; Wenzel, W. A.; Ford, K.; Harrison, T. J.; Hawkes, C. M.; Knowles, D. J.; Morgan, S. E.; Penny, R. C.; Watson, A. T.; Watson, N. K.; Goetzen, K.; Held, T.; Koch, H.; Lewandowski, B.; Pelizaeus, M.; Peters, K.; Schmuecker, H.; Steinke, M.; Barlow, N. R.; Boyd, J. T.; Chevalier, N.; Cottingham, W. N.; Kelly, M. P.; Latham, T. E.; Mackay, C.; Wilson, F. F.; Abe, K.; Cuhadar-Donszelmann, T.; Hearty, C.; Mattison, T. S.; McKenna, J. A.; Thiessen, D.; Kyberd, P.; McKemey, A. K.; Blinov, V. E.; Bukin, A. D.; Golubev, V. B.; Ivanchenko, V. N.; Kravchenko, E. A.; Onuchin, A. P.; Serednyakov, S. I.; Skovpen, Yu. I.; Solodov, E. P.; Yushkov, A. N.; Best,

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DT Preprint

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AB Results of searches for B-meson decays to  $K^+\pi^-\pi^+$  with the BABAR detector are presented. With a data sample of 61.6 million B.hivin.B pairs, the authors measure the branching fractions and 90% confidence-level upper limits averaged over charge-conjugate states (the first error is statistical and the second is systematic):  
.SCRIPTB. ( $B^+ \rightarrow K^0(892)\pi^+$ ) =  $(15.5 \pm 1.8 + 1.5 - 4.0) \times 10^{-6}$ ,  
.SCRIPTB. ( $B^+ \rightarrow f_0(980)K^+$ ,  $f_0 \rightarrow \pi^+\pi^-$ ) =  $(9.2 \pm 1.2 + 2.1 - 2.6) \times 10^{-6}$ ,  
.SCRIPTB. ( $B^+ \rightarrow \text{hivin.D0}\pi^+$ ,  $\text{hivin.D0} \rightarrow K^+\pi^-$ ) =  $(184.6 \pm 3.2 + 9.7) \times 10^{-6}$ ,  
.SCRIPTB. ( $B^+ \rightarrow \rho^0(770)K^+$ ) <  $6.2 \times 10^{-6}$  and  
.SCRIPTB. ( $B^+ \rightarrow K^+\pi^-\pi^+$  non-resonant) <  $17 \times 10^{-6}$ .

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TI Measurement of branching fractions and **charge** asymmetries in B  
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AB We present preliminary measurements of branching fractions and charge asymmetries for the B meson decays  $B \rightarrow \eta(')K^*$ ,  $B \rightarrow \eta(')\rho$ , and  $B^+ \rightarrow \eta'\pi^+$ . The data were recorded with the BABAR detector at PEP-II and correspond to  $89 + 106$  B.hivin.B pairs produced in  $e^+e^-$  annihilation through the  $Y(4S)$  resonance. We find the branching fractions  $\text{SCRIPTB.}(B^0 \rightarrow \eta K^*0) = (19.0 \pm 2.2 - 2.1 + 1.3) \times 10^{-6}$ ,  $\text{SCRIPTB.}(B^+ \rightarrow \eta K^{*+}) = (25.7 \pm 3.8 - 3.6 \pm 1.8) \times 10^{-6}$ ,  $\text{SCRIPTB.}(B^+ \rightarrow \eta \rho^+) = (10.5 \pm 3.1 - 2.8 \pm 1.3) \times 10^{-6}$ ,  $\text{SCRIPTB.}(B^+ \rightarrow \eta' \rho^+) = (14.0 \pm 5.1 - 4.6 \pm 1.9) \times 10^{-6}$  ( $< 22 \times 10^{-6}$  with 90% confidence), and  $\text{SCRIPTB.}(B^+ \rightarrow \eta' \pi^+) = (2.8 \pm 1.3 - 1.0 \pm 0.3) \times 10^{-6}$  ( $< 4.5 \times 10^{-6}$ ). We also set 90% CL upper limits of  $\text{SCRIPTB.}(B^0 \rightarrow \eta' K^*0) < 6.4 \times 10^{-6}$  and  $\text{SCRIPTB.}(B^+ \rightarrow \eta' K^{*+}) < 12 \times 10^{-6}$ . The time-integrated charge asymmetries are  $\text{SCRIPTA.ch}(\eta \rho^+) = +0.06 \pm 0.29 \pm 0.02$ .

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L29 ANSWER 4 OF 31 HCAPLUS\ COPYRIGHT 2004 ACS on STN \*

AN 2003:595027 HCAPLUS

DN 139:282061

TI Measurements of the branching fractions and bounds on the **charge** asymmetries of charmless 3-body **charged** B decays

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CS Laboratoire de Physique des Particules, Annecy-le-Vieux, F-74941, Fr.  
SO Physical Review Letters (2003), 91(5), 051801/1-051801/7  
CODEN: PRLTAO; ISSN: 0031-9007

PB American Physical Society

DT Journal

LA English

AB We present measurements of branching fractions and charge asymmetries for charmless B-meson decays to 3-body final states of charged pions and kaons. The anal. uses 81.8 fb<sup>-1</sup> of data collected at the Y(4S) resonance with the BABAR detector at the SLAC PEP-II asym. B factory. We measure the branching fractions  $B(B^+ \pi^+ \pi^- \pi^+) = (10.9 \pm 3.3 \pm 1.6) \times 10^{-6}$ ,  $B(B^+ K^+ \pi^- \pi^+) = (59.1 \pm 3.8 \pm 3.2) \times 10^{-6}$ , and  $B(B^+ K^+ K^- K^+) = (29.6 \pm 2.1 \pm 1.6) \times 10^{-6}$  and provide 90% C.L. upper limits for other decays. We observe no charge asymmetries for these modes.

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AN 2003:592581 HCAPLUS  
DN 139:266701

- TI Measurement of branching fractions and CP-violating **charge**  
asymmetries in  $B^+ \rightarrow \rho^+\pi^0$  and  $B^+ \rightarrow \rho^0\pi^+$  decays,  
and search for  $B^0 \rightarrow \rho^0\pi^0$
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S. J.; von Wimmersperg-Toeller, J. H.; Wu, J.; Wu, S. L.; Yu, Z.; Neal, H.  
 CS Laboratoire de Physique des Particules, Annecy-te-Vieux, F-74941, Fr.  
 SO Los Alamos National Laboratory, Preprint Archive, High Energy  
 Physics--Experiment (2003) 1-22, arXiv:hep-ex/0307087, 30 Jul 2003  
 CODEN: LNHEFS

URL: <http://xxx.lanl.gov/pdf/hep-ex/0307087>

PB Los Alamos National Laboratory

DT Preprint

LA English

AB We present preliminary measurements of branching fractions and CP-violating charge asymmetries in B-meson decays to  $\rho\pi$ . The data sample comprises 89 million  $Y(4S) \rightarrow B\text{-hivin.B}$  decays collected with the BABAR detector at the PEP-II asym.-energy B Factory at SLAC. We find the charge-averaged branching fractions  $\text{.SCRIPTB.}(B \rightarrow \rho^+\pi^0) = (11.0 \pm 1.9(\text{stat.}) \pm 1.9(\text{syst.})) + 10^{-6}$  and  $\text{.SCRIPTB.}(B \rightarrow \rho^0\pi^+) = (9.3 \pm 1.0(\text{stat.}) \pm 0.8(\text{syst.})) + 10^{-6}$ ; we set a 90% confidence-level upper limit of  $\text{.SCRIPTB.}(B^0 \rightarrow \rho^0\pi^0) < 2.5 + 10^{-6}$ . We measure the CP-violating charge asymmetries  $A_{\rho^+\pi^0}^{\text{CP}} = 0.23 \pm 0.16(\text{stat.}) \pm 0.06(\text{syst.})$  and  $A_{\rho^0\pi^+}^{\text{CP}} = -0.17 \pm 0.11(\text{stat.}) \pm 0.02(\text{syst.})$ .

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AN 2003:509004 HCAPLUS

DN 139:203228

TI Self-Assembled Gold Nanoparticle/Alkanedithiol Films: Preparation, Electron Microscopy, XPS-Analysis, **Charge** Transport, and Vapor-Sensing Properties

AU Joseph, Yvonne; Besnard, Isabelle; Rosenberger, Miriam; Guse, Berit; Nothofer, Heinz-Georg; **Wessels, Jurina M.**; Wild, Ute; Knop-Gericke, Axel; Su, Dangsheng; Schloegl, Robert; **Yasuda, Akio**; Vossmeier, Tobias

CS Materials Science Laboratories, Sony International (Europe) GmbH, Stuttgart, D-70327, Germany

SO Journal of Physical Chemistry B (2003), 107(30), 7406-7413  
 CODEN: JPCBFK; ISSN: 1520-6106

PB American Chemical Society

DT Journal

LA English

AB Gold nanoparticle/alkanedithiol films were prepared via layer-by-layer self-assembly. For the assembly process, dodecylamine-stabilized Au nanoparticles with an average size of 4 nm and alkanedithiols with different alkylene chain lengths (C6, C9, C12, C16) were used. The thickness of the films was determined by AFM and ranged between 26 and 34 nm. FE-SEM and TEM images indicate that the particle size within the film materials was similar to that of the dodecylamine-stabilized particles used for film preparation. The composition of the films was analyzed by XPS. The absence of

the

nitrogen signal indicated that the dodecylamine ligands were quant. exchanged by alkanedithiol mols. during film assembly. Two sulfur signals were observed, which could be assigned to sulfur bound to gold (S-Au) and to free thiol groups (S-H). As indicated by the relative signal intensities, about 60% of the alkanedithiol mols. were bound with both ends to the nanoparticles, whereas 40% were bound with only one thiol group. The C/S ratio was in good agreement with the stoichiometry of the alkanedithiol mols. All films showed linear current-voltage characteristics. Conductivity measurements at variable temperature were consistent with an Arrhenius-type



activation of charge transport. Using an activated tunneling model for describing the charge transport properties, we obtained an electron tunneling decay constant of  $\beta N = 0.61$  or  $0.71$ , depending on the method used for data anal. When the films were dosed with vapors of toluene and tetrachloroethylene, the resistance of the films increased reversibly. This response increased exponentially with increasing length of the alkanedithiol mols. The chemical selectivity of the films corresponded essentially to the solubility properties of the alkanedithiol mols.

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TI Measurements of the branching fractions and **charge** asymmetries of charmless three-body **charged** B decays

AU Barate, R.; Boutigny, D.; Gaillard, J. M.; Hicheur, A.; Karyotakis, Y.; Lees, J. P.; Robbe, P.; Tisserand, V.; Zghiche, A.; Palano, A.; Pompili, A.; Chen, J. C.; Qi, N. D.; Rong, G.; Wang, P.; Zhu, Y. S.; Eigen, G.; Ofte, I.; Stugu, B.; **Abrams, G. S.**; Borgland, A. W.; Breon, A. B.; Brown, D. N.; Button-Shafer, J.; Cahan, R. N.; Charles, E.; Day, C. T.; Gill, M. S.; Gritsan, A. V.; Groyzman, Y.; Jacobsen, R. G.; Kadel, R. W.; Kadyk, J.; Kerth, L. T.; Kolomensky, Yu. G.; Kral, J. F.; Kukartsev, G.; LeClerc, C.; Levi, M. E.; Lynch, G.; Mir, L. M.; Oddone, P. J.; Orimoto, T. J.; Pripstein, M.; Roe, N. A.; Romosan, A.; Ronan, M. T.; Shelkov, V. G.; Telnov, A. V.; Wenzel, W. A.; Harrison, T. J.; Hawkes, C. M.; Knowles, D. J.; Penny, R. C.; Watson, A. T.; Watson, N. K.; Deppermann, T.; Goetzen, K.; Koch, H.; Lewandowski, B.; Pelizaeus, M.; Peters, K.; Schmuecker, H.; Steinke, M.; Barlow, N. R.; Bhimji, W.; Boyd, J. T.; Chevalier, N.; Cottingham, W. N.; Mackay, C.; Wilson, F. F.; Hearty, C.; Mattison, T. S.; McKenna, J. A.; Thiessen, D.; Kyberd, P.; McKemey, A. K.; Blinov, V. E.; Bukin, A. D.; Golubev, V. B.; Ivanchenko, V. N.; Kravchenko, E. A.; Onuchin, A. P.; Serednyakov, S. I.; Skovpen, Yu. I.; Solodov, E. P.; Yushkov, A. N.; Best, D.; Chao, M.; Kirkby, D.; Lankford, A. J.; Mandelkern, M.; McMahon, S.; Mommensen, R. K.; Roethel, W.; Stoker, D. P.; Buchanan, C.; Hadavand, H. K.; Hill, E. J.; MacFarlane, D. B.; Paar, H. P.; Rahatlou, Sh.; Schwanke, U.; Sharma, V.; Berryhill, J. W.; Campagnari, C.; Campagnari, C.; Dahmes, B.; Kuznetsova, N.; Levy, S. L.; Long, O.; Lu, A.; Mazur, M. A.; Richman, J. D.; Verkerke, W.; Beringer, J.; Eisner, A. M.; Heusch, C. A.; Lockman, W. S.; Schalk, T.; Schmitz, R. E.; Schumm, B. A.; Seiden, A.; Turri, M.; Walkowiak, W.; Williams, D. C.; Wilson, M. G.; Albert, J.; Chen, E.; Dorsten, M. P.; Dubois-Felsmann, G. P.; Dvoretzskii, A.; Hitlin, D. G.; Narsky, I.; Porter, F. C.; Ryd, A.; Samuel, A.; Yang, S.; Jayatilke, S.; Mancinelli, G.; Meadows, B. T.; Sokoloff, M. D.; Barillari, T.; Blanc, F.; Bloom, P.; Clark, P. J.; **Ford, W. T.**; Nauenberg, U.; Olivas, A.; Rankin, P.; Roy, J.; Smith, J. G.; van Hoek, W. C.; Zhang, L.; Harton, J. L.; Hu, T.; Soffer, A.; Toki, W. H.; Wilson, R. J.; Zhang, J.; Altenburg, D.; Brandt, T.; Brose, J.; Colberg, T.; Dickopp, M.; Dubitzky, R. S.; Hauke, A.; Lackner, H. M.; Maly, E.; Mueller-Pfefferkorn, R.; Nogowski, R.; Otto, S.; Schubert, K. R.; Schwierz, R.; Spaan, B.; Wilden, L.; Bernard, D.; Bonneaud, G. R.; Brochard, F.; Cohen-Tanugi, J.; Thiebaux, Ch.; Vasileiadis, G.; Verderi, M.; Khan, A.; Lavin, D.; Muheim, F.; Playfer, S.; Swain, J. E.; Tinslay, J.; Bozzi, C.; Piemontese, L.; Sarti, A.; Treadwell, E.; Anulli, F.; Baldini-Ferroli, R.; Calcaterra, A.; de Sangro, R.; Falciai, D.; Finocchiaro, G.; Patteri, P.; Peruzzi, I. M. Piccolo, M.; Zallo, A.; Buzzo, A.; Contri, R.; Crosetti, G.; Lo Vetere, M.; Macri, M.; Monge, M. R.; Passaggio, S.; Pastore, F. C.; Patrignani, C.; Robutti, E.;

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PB Los Alamos National Laboratory

DT Preprint

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AB We present measurements of branching fractions and charge asymmetries for charged B-meson decays to three-body final states of charged pions and kaons. The anal. uses 81.8 fb<sup>-1</sup> of data collected at the Y(4S) resonance with the BABAR detector at the SLAC PEP-II asym. B Factory. No assumptions were made about intermediate resonances, and open charm and charmonium contributions were subtracted. We measured the branching fractions  $B(B^+ \rightarrow \pi^+\pi^-\pi^+) = (10.9 \pm 3.3 \pm 1.6) \times 10^{-6}$ ,  $B(B^+ \rightarrow K^+\pi^-\pi^+) = (59.1 \pm 3.8 \pm 3.2) \times 10^{-6}$  and  $B(B^+ \rightarrow K^+K^-\pi^+) = (29.6 \pm 2.1 \pm 1.6) \times 10^{-6}$ , where the first uncertainty is statistical and the second uncertainty is systematic. We also measured the charge asymmetries  $A(B^+ \rightarrow \pi^+\pi^-\pi^+) = -0.39 \pm 0.33 \pm 0.12$ ,  $A(B^+ \rightarrow K^+\pi^-\pi^+) = 0.01 \pm 0.07 \pm 0.03$  and  $A(B^+ \rightarrow K^+K^-\pi^+) = 0.02 \pm 0.07 \pm 0.03$ . We set the 90% confidence upper limits  $B(B^+ \rightarrow K^+K^-\pi^+) < 6.3 \times 10^{-6}$ ,  $B(B^+ \rightarrow K^-\pi^+\pi^+) < 1.8 \times 10^{-6}$  and  $B(B^+ \rightarrow K^+K^-\pi^-) < 1.3 \times 10^{-6}$ .

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TI Measurements of the branching fractions of **charged** B decays to  $K^+\pi^-\pi^+$  final states

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PB Los Alamos National Laboratory  
 DT Preprint  
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 AB We present preliminary results of searches for exclusive charged B-meson decays to  $K\pi$  from 61.6 million B.hivin.B pairs collected at the Y(4S) resonance with the BABAR detector at the SLAC PEP-II asym. B Factory. The Dalitz plot was divided into eight regions and, using a maximum-likelihood fit, we measured statistically significant yields in all regions. We interpreted the results as the following branching fractions averaged over charged-conjugate states:  $B(B^+ \rightarrow K^0(892)\pi^+, K^0 \rightarrow K\pi^-) = (10.3 \pm 1.2 + 1.0 - 2.7) + 10^{-6}$ ,  $B(B^+ \rightarrow f_0(980)K^+, f_0 \rightarrow \pi^+\pi^-) = (9.2 \pm 1.2 + 2.1 - 2.6) + 10^{-6}$ ,  $B(B^+ \rightarrow \chi_{c0}K^+, \chi_{c0} \rightarrow \pi^+\pi^-) = (1.46 \pm 0.35 \pm 0.12) + 10^{-6}$  and  $B(B^+ \rightarrow .hivin.D0\pi^+, .hivin.D0 \rightarrow K\pi^-) = (184.6 \pm 3.2 \pm 9.7) + 10^{-6}$ . The first uncertainty is statistical and the second is systematic and includes resonance model and interference uncertainties. We give 90% confidence-level upper limits on the branching fractions of the following channels:  $B(B^+ \rightarrow \rho^0(770)K^+) < 6.2 + 10^{-6}$  and  $B(B^+ \rightarrow K\pi^-\pi^+ \text{ non-resonant}) < 17 + 10^{-6}$ .

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AN 2002:494883 HCAPLUS

DN 137:69064

TI Measurements of charmless two-body **charged** B decays with neutral pions and kaons

AU Aubert, B.; Boutigny, D.; Gaillard, J.-M.; Hicheur, A.; Karyotakis, Y.; Lees, J. P.; Robbe, P.; Tisserand, V.; Zghiche, A.; Palano, A.; Pompili, A.; Chen, G. P.; Chen, J. C.; Qi, N. D.; Rong, G.; Wang, P.; Zhu, Y. S.; Eigen, G.; Ofte, I.; Stugu, B.; **Abrams, G. S.**; Borgland, A. W.; Breon, A. B.; Brown, D. N.; Button-Shafer, J.; Cahn, R. N.; Charles, E.; Gill, M. S.; Gritsan, A. V.; Groysman, Y.; Jacobsen, R. G.; Kadel, R. W.; Kadyk, J.; Kerth, L. T.; Kolomensky, Yu. G.; Kral, J. F.; LeClerc, C.; Levi, M. E.; Lynch, G.; Mir, L. M.; Oddone, P. J.; Orimoto, T.; Pripstein, M.; Roe, N. A.; Romosan, A.; Ronan, M. T.; Shelkov, V. G.; Telnov, A. V.; Wenzel, W. A.; Harrison, T. J.; Hawkes, C. M.; Knowles, D. J.; O'Neale, S. W.; Penny, R. C.; Watson, A. T.; Watson, N. K.; Deppermann, T.; Goetzen, K.; Koch, H.; Lewandowski, B.; Peters, K.; Schmuecker, H.; Steinke, M.; Barlow, N. R.; Bhimji, W.; Boyd, J. T.; Chevalier, N.; Clark, P. J.; Cottingham, W. N.; Foster, B.; Mackay, C.; Wilson, F. F.; Abe, K.; Hearty, C.; Mattison, T. S.; McKenna, J. A.; Thiessen, D.; Jolly, S.; McKemey, A. K.; Blinov, V. E.; Bukin, A. D.; Buzykaev, A. R.; Golubev, V. B.; Ivanchenko, V. N.; Korol, A. A.; Kravchenko, E. A.; Onuchin, A. P.; Serednyakov, S. I.; Skovpen, Yu. I.; Yushkov, A. N.; Best, D.; Chao, M.; Kirkby, D.; Lankford, A. J.; Mandelkern, M.; McMahon, S.; Stoker, D. P.; Arisaka, K.; Buchanan, C.; Chun, S.; MacFarlane, D. B.; Prell, S.; Rahatlou, Sh.; Raven, G.; Sharma, V.; Berryhill, J. W.; Campagnari, C.; Dahmes, B.; Hart, P. A.; Kuznetsova, N.; Levy, S. L.; Long, O.; Lu, A.; Mazur, M. A.; Richman, J. D.; Verkerke, W.; Beringer, J.; Eisner, A. M.; Grothe, M.; Heusch, C. A.; Lockman, W. S.; Pulliam, T.; Schalk, T.; Schmitz, R. E.; Schumm, B. A.; Seidenh, A.; Turri, M.; Walkowiak, W.; Williams, D. C.; Wilson, M. G.; Chen, E.; Dubois-Felsmann, G. P.; Dvoretiskii, A.; Hitlin, D. G.; Metzler, S.; Oyang, J.; Porter, F. C.; Ryd, A.; Samuel, A.; Yang, S.; Zhu, R. Y.; Jayatilake, S.; Mancinelli, G.; Meadows, B. T.; Sokoloff, M. D.; Barillari, T.; Bloom, P.; Ford, W. T.; Nauenberg, U.; Olivas, A.; Rankin, P.; Roy, J.; Smith, J. G.; van Hoek, W. C.; Zhang, L.; Blouw, J.; Harton, J. L.; Krishnamurthy, M.; Soffer, A.; Toki, W. H.; Wilson, R. J.; Zhang, J.; Brandt, T.; Brose, J.; Colberg, T.; Dickopp, M.; Dubitzky, R. S.; Hauke, A.; Maly, E.; Mueller-Pfefferkorn, R.; Otto, S.; Schubert, K. R.; Schwierz, R.; Spaan, B.; Wilden, L.; Bernard, D.; Bonneaud, G. R.; Brochard, F.; Cohen-Tanugi, J.; Ferrag, S.; T'Jampens, S.; Thiebaut, Ch.; Vasileidis, G.; Verderi, M.; Anjomshoaa, A.; Bernet, R.; Khan, A.; Lavin, D.; Muheim, F.; Playfer, S.; Swain, J. E.; Tinslay, J.; Falbo, M.; Borean, C.; Bozzi, C.; Piemontese, L.; Treadwell, E.; Anulli, F.; Baldini-Ferrolì, R.; Calcaterra, A.; de Sangro, R.; Falciai, D.; Finocchiaro, G.; Patteri, P.; Peruzzi, I. M.; Piccolo, M.; Xie, Y.; Zallo, A.; Bagnasco, S.; Buzzo, A.; Contri, R.; Crosetti, G.; Lo Vetere, M.; Macri, M.; Monge, M. R.; Passaggio, S.; Pastore, F. C.; Patrignani, C.; Robutti, E.; Santroni, A.; Tosi, S.; Morii, M.; Bartoldus, R.; Hamilton, R.; Mallik, U.; Cochran, J.; Crawley, H. B.; Lamsa, J.; Meyer, W. T.; Rosenberg, E. I.; Yi, J.; Hoecker, A.; Lacker, H. M.; Laplace, S.; Le Diberder, F.; Grosdidier, G.; Lepeltier, V.; Lutz, A. M.; Plasczczynski, S.; Schune, M. H.; Trincaz-Duvold, S.; Wormser, G.; Bionta, R. M.; Brigljevic, V.; Lange, D. J.; Mugge, M.; van Bibber, K.; Wright, D. M.; Bevan, A. J.; Fry, J. R.; Gabathuler, E.; Gamet, R.; George, M.; Kay, M.; Payne, D. J.; Sloane, R. J.; Touramanis, C.; Aspinwall, M. L.; Bowerman, D. A.; Dauncey, P. D.; Egede, U.; Eschrich, I.; Morton, G. W.; Nash, J. A.; Sanders, P.; Smith, D.; Taylor, G. P.; Back, J. J.; Bellodi,

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CS Laboratoire de Physique des Particules, Annecy-le-Vieux, F-74941, Fr.  
SO Los Alamos National Laboratory, Preprint Archive, High Energy  
Physics--Experiment (2002) 1-15, arXiv:hep-ex/0206053, 21 Jun 2002

CODEN: LNHEFS

URL: <http://xxx.lanl.gov/pdf/hep-ex/0206053>

PB Los Alamos National Laboratory

DT Preprint

LA English

AB We present preliminary results of the analyses of  $B \rightarrow h\pi^0$  and  $B \rightarrow hK^0$  decays (with  $h = \pi^\pm, K^\pm$ ) from a sample of approx. 60 million  $B$ - $\bar{B}$  pairs collected by the BABAR detector at the PEP-II asym.-energy  $B$  Factory at SLAC. We find evidence for a signal in  $B^+ \rightarrow \pi^+\pi^0$ , and we measure the branching fraction  $\text{BR}(B^+ \rightarrow \pi^+\pi^0) = (4.1 \pm 1.1 - 1.0 \pm 0.8) \times 10^{-6}$ . We also measure the following branching ratios and charge asymmetries:

$\text{BR}(B^+ \rightarrow K^+\pi^0) = (11.1 \pm 1.3 - 1.2 \pm 1.0) \times 10^{-6}$ ,  
 $\text{BR}(B^+ \rightarrow \pi^+K^0) = (17.5 \pm 1.8 - 1.7 \pm 1.3) \times 10^{-6}$ ,  
 $\text{BR}(B^+ \rightarrow K^+\pi^0) < 1.3 \times 10^{-6}$  (90% CL),  
 $A_{\pi^0}^{\pi^+\pi^0} = -0.02 \pm 0.27 - 0.26 \pm 0.10$ ,  $A_{\pi^0}^{K^+\pi^0} = 0.00 \pm 0.11 \pm 0.02$ ,  $A_{K^0}^{\pi^+\pi^0} = -0.17 \pm 0.10 \pm 0.02$ , where the errors are statistical and systematic, resp.

RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 10 OF 31 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:462494 HCAPLUS

DN 137:40117

TI Tuned multifunctional **linker** molecules for electronic **charge** transport through organic-inorganic composite structures and use thereof

IN Ford, William E.; Wessels, Jurina; Yasuda, Akio

PA Sony International (Europe) G.m.b.H., Germany

SO Eur. Pat. Appl., 36 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1215205	A1	20020619	EP 2000-126968	20001208
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	US 2002127756	A1	20020912	US 2001-6636	20011206
	JP 2002265433	A2	20020918	JP 2001-374916	20011207
PRAI	EP 2000-126968	A	20001208		

AB The problem underlying the present invention is to provide multifunctional linker mols. for tuning the conductivity in nanoparticle-linker assemblies which

can be used in the formation of electronic networks and circuits and thin films of nanoparticles. The problem is solved according to the invention by providing a multifunctional linker mol. of the general structure CON1-FUNC1-X-FUNC2-CON2 in which X is the central body of the mol., FUNC1 and FUNC2 independently of each other are mol. groups introducing a dipole moment and/or capable of forming intermol. and/or intramol. H bonding networks, and CON1 and CON2 independently of each other are mol. groups binding to nanostructured units comprising metal and semiconductor materials.

RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT



L29 ANSWER 11 OF 31 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 2002:450251 HCAPLUS  
 DN 137:17455  
 TI **Linker** molecules for selective metalization of nucleic acids and their uses  
 IN **Ford, William; Wessels, Jurina; Yasuda, Akio**  
 PA Germany  
 SO U.S. Pat. Appl. Publ., 21 pp.  
 CODEN: USXXCO  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002072069	A1	20020613	US 2001-8179	20011207
	EP 1215199	A1	20020619	EP 2000-126966	20001208
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2003026643	A2	20030129	JP 2001-371836	20011205
	CN 1357536	A	20020710	CN 2001-143128	20011210
PRAI	EP 2000-126966	A	20001208		

AB The invention concerns to linker mols. comprising one or more nucleic acid binding group and one or more nanoparticle binding group which are connected covalently by a spacer group. The problem underlying the present invention is to provide methods for the controlled and selective metalization of nucleic acids, the production of nanowires which may be used, e.g., in the formation of electronic networks and circuits allowing a high d. arrangement, and the components of devices that may be incorporated in such networks and circuits. This problem is solved by a linker mol. which comprises one or more nucleic acid binding group(s) and one or more nanoparticle binding group(s) which are connected covalently by a spacer group. Such linkers can be used for the manufacture of nucleic acid/linker conjugates, nanoparticle/linker conjugates, and nanoparticle/linker/nucleic acid composites and further nanowires, electronic networks, electronic circuits and junctions comprising said nanowires.

L29 ANSWER 12 OF 31 HCAPLUS } COPYRIGHT 2004 ACS on STN \*  
 AN 2002:415798 HCAPLUS  
 DN 137:99821  
 TI Study of  $B_{\pm} \rightarrow J/\psi \pi_{\pm}$  and  $B_{\pm} \rightarrow J/\psi K_{\pm}$   
 decays: Measurement of the ratio of branching fractions and search for direct CP-violating **charge** asymmetries  
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DT Journal

LA English

AB We have studied the  $B^\pm \rightarrow J/\psi \pi^\pm$  and  $B^\pm \rightarrow J/\psi K^\pm$  decays using a 20.7 fb<sup>-1</sup> data set collected with the BABAR detector. We observe a signal of  $51 \pm 10$   $B^\pm \rightarrow J/\psi \pi^\pm$  events and determine the ratio  $B(B^\pm \rightarrow J/\psi \pi^\pm)/B(B^\pm \rightarrow J/\psi K^\pm)$  to be  $[3.91 \pm 0.78(\text{stat}) \pm 0.19(\text{syst})]\%$ . The CP-violating charge asymmetries for the  $B^\pm \rightarrow J/\psi \pi^\pm$  and  $B^\pm \rightarrow J/\psi K^\pm$  decays are determined to be  $A_\pi = 0.01 \pm 0.22(\text{stat}) \pm 0.01(\text{syst})$  and  $A_K = 0.003 \pm 0.030(\text{stat}) \pm 0.004(\text{syst})$ .

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TI Measurement of  $B \rightarrow K^* \gamma$  branching fractions and charge asymmetries

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 URL: <http://xxx.lanl.gov/pdf/hep-ex/0110065>  
 PB Los Alamos National Laboratory  
 DT Preprint  
 LA English  
 AB The branching fractions of the exclusive decays  $B^0 \rightarrow K^*0\gamma$  and  
 $B^+ \rightarrow K^*\gamma$  are measured from a sample of  $(22.74 \pm 0.36) \times$   
 $10^6$  B.hivin.B decays collected with the BABAR detector at the PEP II asym.  
 $e^+e^-$  collider. We find  $B(B^0 \rightarrow K^*0\gamma) = (4.23 \pm 0.40(\text{stat.})$   
 $\pm 0.22(\text{sys.})) \times 10^{-5}$ ,  $B(B^+ \rightarrow K^*\gamma) (3.83 \rightarrow$   
 $0.62(\text{stat.}) \pm 0.22(\text{sys.})) \times 10^{-5}$  and constrain the CP-violating charge  
 asymmetry to be  $-0.0170 < ACP(B \rightarrow K^*\gamma) < 0.082$  at 90% C.L.  
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AB We present measurements, based on a sample of approx.  $23+106$  B-B pairs, of the branching fractions and a search for CP-violating charge asymmetries in charmless hadronic decays of B mesons into two-body final states of kaons and pions. We find the branching fractions  $B(B^0 \rightarrow \pi^+\pi^-) = (4.1 \pm 1.0 \pm 0.7) \times 10^{-6}$ ,  $B(B^0 \rightarrow K^+\pi^-) = (16.7 \pm 1.6 \pm 1.3) \times 10^{-6}$ ,  $B(B^+ \rightarrow K^+\pi^0) = (10.8 \pm 2.1 - 1.9 \pm 1.0) \times 10^{-6}$ ,  $B(B^+ \rightarrow K^0\pi^+) = (18.2 \pm 3.3 - 3.0 \pm 2.0) \times 10^{-6}$ ,  $B(B^0 \rightarrow K^0\pi^0) = (8.2 \pm 3.1 - 2.7 \pm 1.2) \times 10^{-6}$ . We also report 90% confidence level upper limits for B meson decays to the  $\pi^+\pi^0$ ,  $K^+K^-$ , and  $K^0K^+$  final states. In addition, charge asymmetries have been found to be consistent with zero, where the statistical precision is in the range of  $\pm 0.10$  to  $\pm 0.18$ , depending on the decay mode.

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TI Measurement of branching fractions and search for CP-violating charge asymmetries in charmless two-body B decays into pions and kaons



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CS Laboratoire de Physique des Particules, Annecy-le-Vieux, F-74941, Fr.

SO Los Alamos National Laboratory, Preprint Archive, High Energy Physics--Experiment (2001) 1-8, arXiv:hep-ex/0105061, 21 May 2001  
CODEN: LNHEFS  
URL: <http://xxx.lanl.gov/pdf/hep-ex/0105061>

PB Los Alamos National Laboratory

DT Preprint

LA English

AB We present measurements of the branching fractions and a search for CP-violating charge asymmetries in charmless hadronic decays of B mesons into two-body final states of kaons and pions. The results are based on a data sample of approx. 23 million B.hivin.B pairs collected by the BABAR detector at the PEP-II asym. B Factory at SLAC. We find the following branching fractions:  $\text{Br}(B^0 \rightarrow \pi^+\pi^-) = (4.1 \pm 1.0 \pm 0.7) + 10^{-6}$ ,  $\text{Br}(B^0 \rightarrow K^+\pi^-) = (16.7 \pm 1.6 \pm 1.3) + 10^{-6}$ ,  $\text{Br}(B^+ \rightarrow K^+\pi^0) = (10.8 \pm 2.1 \pm 1.9 \pm 1.0) + 10^{-6}$ ,  $\text{Br}(B^+ \rightarrow K^0\pi^+) = (18.2 \pm 3.3 \pm 3.0 \pm 2.0) + 10^{-6}$ ,  $\text{Br}(B^0 \rightarrow K^0\pi^0) = (8.2 \pm 3.1 \pm 2.7 \pm 1.2) + 10^{-6}$ . We also report the 90% confidence level upper limits  $\text{Br}(B^0 \rightarrow K^+K^-) < 2.5 + 10^{-6}$ ,  $\text{Br}(B^+ \rightarrow \pi^+\pi^0) < 9.6 + 10^{-6}$ , and  $\text{Br}(B^+ \rightarrow \text{.hivin.K}^0K^+) < 2.4 + 10^{-6}$ . In addition, charge asymmetries have been measured and found to be consistent with zero, where the statistical precision is in the range of  $\pm 0.10$  to  $\pm 0.18$ , depending on the decay mode.

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L29 ANSWER 16 OF 31 HCAPLUS } COPYRIGHT 2004 ACS on STN \*

AN 2001:216870 HCAPLUS

DN 134:272399

TI Measurement of the Relative Branching Fraction of Y(4S) to **Charged** and Neutral B-Meson Pairs

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Chen, S.; Fast, J.; Hinson, J. W.; Lee, J.; Menon, N.; Miller, D. H.; Shibata, E. I.; Shipsey, I. P. J.; Pavlunin, V.; Cronin-Hennessy, D.; Kwon, Y.; Lyon, A. L.; Thorndike, E. H.; Jessop, C. P.; Marsiske, H.; Perl, M. L.; Savinov, V.; Ugolini, D.; Zhou, X.; Coan, T. E.; Fadeyev, V.; Maravin, Y.; Narsky, I.; Stroynowski, R.; Ye, J.; Wlodek, T.; Artuso, M.; Ayad, R.; Boulahouache, C.; Bukin, K.; Dambasuren, E.; Karamov, S.; Majumder, G.; Moneti, G. C.; Mountain, R.; Schuh, S.; Skwarnicki, T.; Stone, S.; Viehhauser, G.; Wang, J. C.; Wolf, A.; Wu, J.; Kopp, S.; Csorna, S. E.; Danko, I.; McLean, K. W.; Marka, Sz.; Xu, Z.; Godang, R.; Kinoshita, K.; Lai, I. C.; Schrenk, S.; Bonvicini, G.; Cinabro, D.; McGee, S.; Perera, L. P.; Zhou, G. J.; Lipeles, E.; Schmidtler, M.; Shapiro, A.; Sun, W. M.; Weinstein, A. J.; Wurthwein, F.; Jaffe, D. E.; Masek, G.; Paar, H. P.; Potter, E. M.; Prell, S.; Sharma, V.; Asner, D. M.; Eppich, A.; Hill, T. S.; Morrison, R. J.; Briere, R. A.; Behrens, B. H.; Ford, W. T.; Gritsan, A.; Roy, J.; Smith, J. G.

CS Cornell University, Ithaca, NY, 14853, USA  
 SO Physical Review Letters (2001), 86(13), 2737-2741  
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 PB American Physical Society  
 DT Journal  
 LA English  
 AB We analyze 9.7+106 BB pairs recorded with the CLEO detector to determine the production ratio of charged to neutral B-meson pairs produced at the Y(4S) resonance. We measure the rates for  $B^0 J/\psi K^{(*)0}$  and  $B^+ J/\psi K^{(*)+}$  decays and use the world-average B-meson lifetime ratio to extract the relative widths  $f_{+-}/f_{00} = \Gamma(Y(4S) B^+ B^-) / \Gamma(Y(4S) B^0 B^0) = 1.04 \pm 0.07(\text{stat}) \pm 0.04(\text{syst})$ . With the assumption that  $f_{+-} + f_{00} = 1$ , we obtain  $f_{00} = 0.49 \pm 0.02(\text{stat}) \pm 0.01(\text{syst})$  and  $f_{+-} = 0.51 \pm 0.02(\text{stat}) \pm 0.01(\text{syst})$ . This production ratio and its uncertainty apply to all exclusive B-meson branching fractions measured at the Y(4S) resonance.

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 TI Measurement of **charge** asymmetries in charmless hadronic B meson decays  
 AU Chen, S.; Fast, J.; Hinson, J. W.; Lee, J.; Menon, N.; Miller, D. H.; Shibata, E. I.; Shipsey, I. P. J.; Pavunin, V.; Cronin-Hennessy, D.; Kwon, Y.; Lyon, A. L.; Thorndike, E. H.; Jessop, C. P.; Marsiske, H.; Perl, M. L.; Savinov, V.; Ugolini, D.; Zhou, X.; Coan, T. E.; Fadeyev, V.; Maravin, Y.; Narsky, I.; Stroynowski, R.; Ye, J.; Wlodek, T.; Artuso, M.; Ayad, R.; Boulahouache, C.; Bukin, K.; Dambasuren, E.; Karamnov, S.; Kopp, S.; Majumder, G.; Moneti, G. C.; Mountain, R.; Schuh, S.; Skwarnicki, T.; Stone, S.; Viehhauser, G.; Wang, J. C.; Wolf, A.; Wu, J.; Csorna, S. E.; Danko, I.; McLean, K. W.; Marka, Sz.; Xu, Z.; Godang, R.; Kinoshita, K.; Lai, I. C.; Schrenk, S.; Bonvicini, G.; Cinabro, D.; Perera, L. P.; Zhou, G. J.; Eigen, G.; Lipeles, E.; Schmidtler, M.; Shapiro, A.; Sun, W. M.; Weinstein, A. J.; Wurthwein, F.; Jaffe, D. E.; Masek, G.; Paar, H. P.; Potter, E. M.; Prell, S.; Sharma, V.; Asner, D. M.; Eppich, A.; Gronberg, J.; Hill, T. S.; Lange, D. J.; Morrison, R. J.; Nelson, H. N.; Briere, R. A.; Behrens, B. H.; **Ford, W. T.**; Gritsan, A.; Roy, J.; Smith, J. G.; Alexander, J. P.; Baker, R.; Bebek, C.; Berger, B. E.; Berkelman, K.; Blanc, F.; Boisvert, V.; Cassel, D. G.; Dickson, M.; Drell, P. S.; Ecklund, K. M.; Ehrlich, R.; Foland, A. D.; Gaidarev, P.; Gibbons, L.; Gittelman, B.; Gray, S. W.; Hartill, D. L.; Heltsley, B. K.; Hopman, P.

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CS Purdue Univ., West Lafayette, IN, 47907, USA  
 SO Los Alamos National Laboratory, Preprint Archive, High Energy Physics--Experiment (2000) 1-10, arXiv:hep-ex/0001009, 31 Jan 2000  
 CODEN: LNHEFS  
 URL: <http://xxx.lanl.gov/pdf/hep-ex/0001009>  
 PB Los Alamos National Laboratory  
 DT Preprint  
 LA English  
 AB We search for CP-violating asymmetries (ACP) in the B meson decays to  $K\pi^-+$ ,  $K\pi^0$ ,  $KS^0\pi^\pm$ ,  $K\eta'$ , and  $\omega\pi^\pm$ . Using 9.66 million  $Y(4S)$  decays collected with the CLEO detector, the statistical precision on ACP is in the range of  $\pm 0.12$  to  $\pm 0.25$  depending on decay mode. While CP-violating asymmetries of up to  $\pm 0.5$  are possible within the Standard Model, the measured asymmetries are consistent with zero in all five decay modes studied.

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L29 ANSWER 18 OF 31 HCAPLUS COPYRIGHT 2004 ACS on STN \*  
 AN 2000:483646 HCAPLUS  
 DN 133:214271  
 TI Measurement of **Charge** Asymmetries in Charmless Hadronic B Meson Decays  
 AU Chen, S.; Fast, J.; Hinson, J. W.; Lee, J.; Menon, N.; Miller, D. H.; Shibata, E. I.; Shipsey, I. P. J.; Pavlunin, V.; Cronin-Hennessy, D.; Kwon, Y.; Lyon, A. L.; Thorndike, E. H.; Jessop, C. P.; Marsiske, H.; Perl, M. L.; Savinov, V.; Ugolini, D.; Zhou, X.; Coan, T. E.; Fadeyev, V.; Maravin, Y.; Narsky, I.; Stroynowski, R.; Ye, J.; Wlodek, T.; Artuso, M.; Ayad, R.; Boulahouache, C.; Bukin, K.; Dambasuren, E.; Karamnov, S.; Kopp, S.; Majumder, G.; Moneti, G. C.; Mountain, R.; Schuh, S.; Skwarnicki, T.; Stone, S.; Viehhauser, G.; Wang, J. C.; Wolf, A.; Wu, J.; Csorna, S. E.; Danko, I.; McLean, K. W.; Marka, Sz.; Xu, Z.; Godang, R.; Kinoshita, K.; Lai, I. C.; Schrenk, S.; Bonvicini, G.; Cinabro, D.; Perera, L. P.; Zhou, G. J.; Eigen, G.; Lipales, E.; Schmidttler, M.; Shapiro, A.; Sun, W. M.; Weinstein, A. J.; Wurthwein, F.; Jaffe, D. E.; Masek, G.; Paar, H. P.; Potter, E. M.; Prell, S.; Sharma, V.; Asner, D. M.; Eppich, A.; Gronberg, J.; Hill, T. S.; Lange, D. J.; Morrison, R. J.; Nelson, H. N.; Briere, R. A.; Behrens, B. H.; **Ford, W. T.**; Gritsan, A.; Roy, J.; Smith, J. G.; Alexander, J. P.; Baker, R.; Bebek, C.; Berger, B. E.; Berkelman, K.; Blanc, F.; Boisvert, V.; Cassel, D. G.; Dickson, M.; Drell, P. S.;

Ecklund, K. M.; Ehrlich, R.; Foland, A. D.; Gaidarev, P.; Gibbons, L.; Gittelmann, B.; Gray, S. W.; Hartill, D. L.; Heltsley, B. K.; Hopman, P. I.; Jones, C. D.; Kreinick, D. L.; Lohner, M.; Magerkurth, A.; Meyer, T. O.; Mistry, N. B.; Ng, C. R.; Nordberg, E.; Patterson, J. R.; Peterson, D.; Riley, D.; Thayer, J. G.; Thies, P. G.; Valant-Spaight, B.; Warburton, A.; Avery, P.; Prescott, C.; Rubiera, A. I.; Yelton, J.; Zheng, J.; Brandenburg, G.; Ershov, A.; Gao, Y. S.; Kim, D. Y.-J.; Wilson, R.; Browder, T. E.; Li, Y.; Rodriguez, J. L.; Yamamoto, H.; Bergfeld, T.; Eisenstein, B. I.; Ernst, J.; Gladding, G. E.; Gollin, G. D.; Hans, R. M.; Johnson, E.; Karliner, I.; Marsh, M. A.; Palmer, M.; Plager, C.; Sedlack, C.; Selen, M.; Thaler, J. J.; Williams, J.; Edwards, K. W.; Janicek, R.; Patel, P. M.; Sadoff, A. J.; Ammar, R.; Bean, A.; Besson, D.; Davis, R.; Kravchenko, I.; Kwak, N.; Zhao, X.; Anderson, S.; Frolov, V. V.; Kubota, Y.; Lee, S. J.; Mahapatra, R.; O'Neill, J. J.; Poling, R.; Riehle, T.; Smith, A.; Urheim, J.; Ahmed, S.; Alam, M. S.; Athar, S. B.; Jian, L.; Ling, L.; Mahmood, A. H.; Saleem, M.; Timm, S.; Wappler, F.; Anastassov, A.; Duboscq, J. E.; Gan, K. K.; Gwon, C.; Hart, T.; Honscheid, K.; Hufnagel, D.; Kagan, H.; Kass, R.; Lorenc, J.; Pedlar, T. K.; Schwarthoff, H.; von Toerne, E.; Zoeller, M. M.; Richichi, S. J.; Severini, H.; Skubic, P.; Undrus, A.

CS Purdue University, West Lafayette, IN, 47907, USA

SO Physical Review Letters (2000), 85(3), 525-529

CODEN: PRLTAO; ISSN: 0031-9007

PB American Physical Society

DT Journal

LA English

AB We search for CP-violating charge asymmetries (ACP) in the B meson decays to  $K\pi^-+$ ,  $K\pi^0$ ,  $K^0\pi^+$ ,  $K\eta'$ , and  $\omega\pi^+$ . Using 9.66 million  $Y(4S)$  decays collected with the CLEO detector, the statistical precision on ACP is in the range of  $\pm 0.12$  to  $\pm 0.25$  depending on decay mode. While CP-violating asymmetries of up to  $\pm 0.5$  are possible within the standard model, the measured asymmetries are consistent with zero in all five decay modes studied.

RE.CNT 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 19 OF 31 HCAPLUS COPYRIGHT 2004 ACS on STN \*

AN 2000:480450 HCAPLUS

DN 133:169229

TI High- $p_T$  **charged**-pion production in Pb-Au collisions at 158 AGeV/c

AU Agakichiev, G.; Baur, R.; Braun-Munzinger, P.; Drees, A.; Esumi, S.; Faschingbauer, U.; Fraenkel, Z.; Fuchs, Ch.; Glassel, P.; de los Heros, C. P.; Holl, P.; Jung, Ch.; Lenkeit, B.; Messer, F.; Messer, M.; Panebrattsev, Y.; Pfeiffer, A.; Rak, J.; Ravinovich, I.; Razin, S.; Rehak, P.; Richter, M.; Saveljic, N.; Schukraft, J.; Shimansky, S.; Seipp, W.; Socol, E.; Specht, H. J.; Stachel, J.; Tel-Zur, G.; Tserruya, I.; Ullrich, T.; Voigt, C.; Weber, C.; Wessels, J. P.; Wienold, T.; Wurm, J. P.; Yurevich, J. V.

CS JINR, Dubna, Russia

SO Los Alamos National Laboratory, Preprint Archive, High Energy Physics--Experiment (2000) 1-11, arXiv:hep-ex/0003012, 31 Mar 2000  
CODEN: LNHEFS

URL: <http://xxx.lanl.gov/pdf/hep-ex/0003012>

PB Los Alamos National Laboratory

DT Preprint

LA English

AB The CERES/NA45 experiment at the CERN SPS measured transverse momentum spectra of charged-pions in the range  $1 < p_T < 4$  GeV/c near mid-rapidity ( $2.1 < y < 2.6$ ) in 158 AGeV/c Pb-Au collisions. The invariant transverse momentum spectra are exponential over the entire observed range. The average inverse slope is  $245 \pm 5$  MeV/c, it shows a 2.4% increase with centrality of the collision over the 35% most central fraction of the cross section. The  $\pi^-/\pi^+$  ratio is constant at  $1.028 \pm 0.005$  over the  $p_T$  interval measured.

RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 20 OF 31 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2000:195759 HCAPLUS

DN 132:213579

TI **Charged** track multiplicity in B meson decay

AU Brandenburg, G.; Ershov, A.; Gao, Y. S.; Kim, D. Y.-J.; Wilson, R.; Browder, T. E.; Li, Y.; Rodriguez, J. L.; Yamamoto, H.; Bergfeld, T.; Eisenstein, B. I.; Ernst, J.; Gladding, G. E.; Gollin, G. D.; Hans, R. M.; Johnson, E.; Karliner, I.; Marsh, M. A.; Palmer, M.; Plager, C.; Sedlack, C.; Selen, M.; Thaler, J. J.; Williams, J.; Edwards, K. W.; Janicek, R.; Patel, P. M.; **Sadoff, A. J.**; Ammar, R.; Baringer, P.; Bean, A.; Besson, D.; Davis, R.; Kotov, S.; Kravchenko, I.; Kwak, N.; Zhao, X.; Anderson, S.; Frolov, V. V.; Kubota, Y.; Lee, S. J.; Mahapatra, R.; O'Neill, J. J.; Poling, R.; Riehle, T.; Smith, A.; Ahmed, S.; Alam, M. S.; Athar, S. B.; Jian, L.; Ling, L.; Mahmood, A. H.; Saleem, M.; Timm, S.; Wappler, F.; Anastassov, A.; Duboscq, J. E.; Gan, K. K.; Gwon, C.; Hart, T.; Honscheid, K.; Kagan, H.; Kass, R.; Lorenc, J.; Schwarthoff, H.; Spencer, M. B.; von Toerne, E.; Zoeller, M. M.; Richichi, S. J.; Severini, H.; Skubic, P.; Undrus, A.; Bishai, M.; Chen, S.; Fast, J.; Hinson, J. W.; Lee, J.; Menon, N.; Miller, D. H.; Shibata, E. I.; Shipsey, I. P. J.; Kwon, Y.; Lyon, A. L.; Thorndike, E. H.; Jessop, C. P.; Lingel, K.; Marsiske, H.; Perl, M. L.; Savinov, V.; Ugolini, D.; Zhou, X.; Coan, T. E.; Fadeyev, V.; Korolkov, I.; Maravin, Y.; Narsky, I.; Stroynowski, R.; Ye, J.; Wlodek, T.; Artuso, M.; Ayad, R.; Dambasuren, E.; Kopp, S.; Majumder, G.; Moneti, G. C.; Mountain, R.; Schuh, S.; Skwarnicki, T.; Stone, S.; Titov, A.; Viehhauser, G.; Wang, J. C.; Wolf, A.; Wu, J.; Csorna, S. E.; McLean, K. W.; Marka, S.; Xu, Z.; Godang, R.; Kinoshita, K.; Lai, I. C.; Pomianowski, P.; Schrenk, S.; Bonvicini, G.; Cinabro, D.; Greene, R.; Perera, L. P.; Zhou, G. J.; Chan, S.; Eigen, G.; Lipeles, E.; Schmidtler, M.; Shapiro, A.; Sun, W. M.; Urheim, J.; Weinstein, A. J.; Wurthwein, F.; Jaffe, D. E.; Masek, G.; Paar, H. P.; Potter, E. M.; Prell, S.; Sharma, V.; Asner, D. M.; Eppich, A.; Gronberg, J.; Hill, T. S.; Lange, D. J.; Morrison, R. J.; Nelson, T. K.; Richman, J. D.; Roberts, D.; Briere, R. A.; Behrens, B. H.; **Ford, W. T.**; Gritsan, A.; Krieg, H.; Roy, J.; Smith, J. G.; Alexander, J. P.; Baker, R.; Bebek, C.; Berger, B. E.; Berkelman, K.; Blanc, F.; Boisvert, V.; Cassel, D. G.; Dickson, M.; von Dombrowski, S.; Drell, P. S.; Ecklund, K. M.; Ehrlich, R.; Foland, A. D.; Gaidarev, P.; Galik, R. S.; Gibbons, L.; Gittelmann, B.; Gray, S. W.; Hartill, D. L.; Heltsley, B. K.; Hopman, P. I.; Jones, C. D.; Kreinick, D. L.; Lee, T.; Liu, Y.; Meyer, T. O.; Mistry, N. B.; Ng, C. R.; Nordberg, E.; Patterson, J. R.; Peterson, D.; Riley, D.; Thayer, J. G.; Thies, P. G.; Valant-Spaight, B.; Warburton, A.; Avery, P.; Lohner, M.; Prescott, C.; Rubiera, A. I.; Yelton, J.; Zheng, J.

CS Harvard University, Cambridge, MA, 02138, USA

SO Physical Review D: Particles and Fields (2000), 61(7), 072002/1-072002/6  
CODEN: PRVDAQ; ISSN: 0556-2821

PB American Physical Society

DT Journal

LA English

AB We have used the CLEO II detector to study the multiplicity of charged particles in the decays of B mesons produced at the Y(4S) resonance. Using a sample of  $1.5 \times 10^6$  B meson pairs, we find the mean inclusive charged particle multiplicity to be  $10.71 \pm 0.02 - 0.15 + 0.21$  for the decay of the pair. This corresponds to a mean multiplicity of  $5.36 \pm 0.01 - 0.08 + 0.11$  for a single B meson. Using the same data sample, we have also extracted the mean multiplicities in semileptonic and nonleptonic decays. We measure a mean of  $7.82 \pm 0.05 - 0.19 + 0.21$  charged particles per B-B decay when both mesons decay semileptonically. When neither B meson decays semileptonically, we measure a mean charged particle multiplicity of  $11.62 \pm 0.04 - 0.18 + 0.24$  per B-B pair.

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 21 OF 31 HCAPLUS COPYRIGHT 2004 ACS on STN \*

AN 1999:740437 HCAPLUS

DN 132:70351

TI Study of 3-prong hadronic  $\tau$  decays with **charged** kaons

AU Richichi, S. J.; Severini, H.; Skubic, P.; Undrus, A.; Bishai, M.; Chen, S.; Fast, J.; Hinson, J. W.; Menon, N.; Miller, D. H.; Shibata, E. I.; Shipsey, I. P. J.; Glenn, S.; Kwon, Y.; Lyon, A. L.; Roberts, S.; Thorndike, E. H.; Jessop, C. P.; Lingel, K.; Marsiske, H.; Perl, M. L.; Savinov, V.; Ugolini, D.; Zhou, X.; Coan, T. E.; Fadeyev, V.; Korolkov, I.; Maravin, Y.; Narsky, I.; Stroynowski, R.; Ye, J.; Artuso, M.; Dambasuren, E.; Kopp, S.; Moneti, G. C.; Mountain, R.; Schuh, S.; Skwarnicki, T.; Stone, S.; Titov, A.; Viehhauser, G.; Wang, J. C.; Bartelt, J.; Csorna, S. E.; McLean, K. W.; Marka, S.; Xu, Z.; Godang, R.; Kinoshita, K.; Lai, I. C.; Pomianowski, P.; Schrenk, S.; Bonvicini, G.; Cinabro, D.; Greene, R.; Perera, L. P.; Zhou, G. J.; Chan, S.; Eigen, G.; Lipeles, E.; Miller, J. S.; Schmidtler, M.; Shapiro, A.; Sun, W. M.; Urheim, J.; Weinstein, A. J.; Wurthwein, F.; Bliss, D. W.; Jaffe, D. E.; Masek, G.; Paar, H. P.; Potter, E. M.; Prell, S.; Sharma, V.; Asner, D. M.; Gronberg, J.; Hill, T. S.; Lange, D. J.; Morrison, R. J.; Nelson, H. N.; Nelson, T. K.; Roberts, D.; Behrens, B. H.; **Ford, W. T.**; Gritsan, A.; Krieg, H.; Roy, J.; Smith, J. G.; Alexander, J. P.; Baker, R.; Bebek, C.; Berger, B. E.; Berkelman, K.; Boisvert, V.; Cassel, D. G.; Crowcroft, D. S.; Dickson, M.; von Dombrowski, S.; Drell, P. S.; Ecklund, K. M.; Ehrlich, R.; Foland, A. D.; Gaidarev, P.; Galik, R. S.; Gibbons, L.; Gittelmann, B.; Gray, S. W.; Hartill, D. L.; Heltsley, B. K.; Hopman, P. I.; Kandaswamy, J.; Kreinick, D. L.; Lee, T.; Liu, Y.; Mistry, N. B.; Ng, C. R.; Nordberg, E.; Ogg, M.; Patterson, J. R.; Peterson, D.; Riley, D.; Soffer, A.; Valant-Spaight, B.; Ward, C.; Athanas, M.; Avery, P.; Jones, C. D.; Lohner, M.; Patton, S.; Prescott, C.; Rubiera, A. I.; Yelton, J.; Zheng, J.; Brandenburg, G.; Briere, R. A.; Ershov, A.; Gao, Y. S.; Kim, D. Y.-J.; Wilson, R.; Yamamoto, H.; Browder, T. E.; Li, Y.; Rodriguez, J. L.; Sahu, S. K.; Bergfeld, T.; Eisenstein, B. I.; Ernst, J.; Gladding, G. E.; Gollin, G. D.; Hans, R. M.; Johnson, E.; Karliner, I.; Marsh, M. A.; Palmer, M.; Selen, M.; Thaler, J. J.; Edwards, K. W.; Bellerive, A.; Janicek, R.; Patel, P. M.; Sadoff, A. J.; Ammar, R.; Baringer, P.; Bean, A.; Besson, D.; Coppage, D.; Darling, C.; Davis, R.; Kotov, S.; Kravchenko, I.; Kwak, N.; Zhou, L.; Anderson, S.; Kubota, Y.; Lee, S. J.; Mahapatra, R.; O'Neill, J. J.; Poling, R.; Riehle, T.; Smith, A.; Alam, M. S.; Athar, S. B.; Ling, Z.; Mahmood, A. H.; Timm, S.; Wappler, F.; Anastassov, A.; Duboscq, J. E.; Gan, K. K.; Hart, T.; Honscheid, K.; Kagan, H.; Kass, R.; Lee, J.; Schwarthoff, H.; Spencer, M. B.; Wolf, A.; Zoeller, M. M.

CS University of Oklahoma, Norman, OK, 73019, USA



SO Physical Review D: Particles and Fields (1999), 60(11), 112002/1-112002/9  
CODEN: PRVDAQ; ISSN: 0556-2821  
PB American Physical Society  
DT Journal  
LA English  
AB Using a sample of 4.7 fb<sup>-1</sup> integrated luminosity accumulated with the CLEO-II detector at the Cornell Electron Storage Ring (CESR), we have measured the ratios of the branching fractions  $B(\tau^- \rightarrow K^- h + \pi^- \nu_\tau)/B(\tau^- \rightarrow h^- h + \pi^- \nu_\tau) = (5.16 \pm 0.20 + -0.50) + 10^{-2}$ ,  $B(\tau^- \rightarrow K^- h + \pi^- \pi^0 \nu_\tau)/B(\tau^- \rightarrow h^- h + \pi^- \pi^0 \nu_\tau) = (2.54 \pm 0.44 \pm 0.39) + 10^{-2}$ ,  $B(\tau^- \rightarrow K^- K + \pi^- \nu_\tau)/B(\tau^- \rightarrow h^- h + \pi^- \nu_\tau) = (1.52 + -0.14 \pm 0.29) + 10^{-2}$ , and the upper limit  $B(\tau^- \rightarrow K^- K + \pi^- \pi^0 \nu_\tau)/B(\tau^- \rightarrow h^- h + \pi^- \pi^0 \nu_\tau) < 0.0154$  at 95% C.L. Coupled with addnl. exptl. information, we use our results to extract information on the structure of three-prong tau decays to charged kaons.

RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 22 OF 31 HCAPLUS COPYRIGHT 2004 ACS on STN ~~AK~~  
AN 1998:540692 HCAPLUS  
DN 129:251146  
TI Continuum **charged** D\* spin alignment at  $\sqrt{s}=10.5$  GeV  
AU Brandenburg, G.; Briere, R. A.; Ershov, A.; Gao, Y. S.; Kim, D. Y.-J.; Wilson, R.; Yamamoto, H.; Browder, T. E.; Li, Y.; Rodriguez, J. L.; Bergfeld, T.; Eisenstein, B. I.; Ernst, J.; Gladding, G. E.; Gollin, G. D.; Hans, R. M.; Johnson, E.; Karliner, I.; Marsh, M. A.; Palmer, M.; Selen, M.; Thaler, J. J.; Edwards, K. W.; Bellerive, A.; Janicek, R.; MacFarlane, D. B.; Patel, P. M.; Sadoff, A. J.; Ammar, R.; Baringer, P.; Bean, A.; Besson, D.; Coppage, D.; Darling, C.; Davis, R.; Kotov, S.; Kravchenko, I.; Kwak, N.; Zhou, L.; Anderson, S.; Kubota, Y.; Lee, S. J.; O'Neill, J. J.; Poling, R.; Riehle, T.; Smith, A.; Alam, M. S.; Athar, S. B.; Ling, Z.; Mahmood, A. H.; Timm, S.; Wappler, F.; Anastassov, A.; Duboscq, J. E.; Fujino, D.; Gan, K. K.; Hart, T.; Honscheid, K.; Kagan, H.; Kass, R.; Lee, J.; Spencer, M. B.; Sung, M.; Undrus, A.; Wolf, A.; Zoeller, M. M.; Nemati, B.; Richichi, S. J.; Ross, W. R.; Severini, H.; Skubic, P.; Bishai, M.; Fast, J.; Hinson, J. W.; Menon, N.; Miller, D. H.; Shibata, E. I.; Shipsey, I. P. J.; Yurko, M.; Glenn, S.; Kwon, Y.; Lyon, A. L.; Roberts, S.; Thorndike, E. H.; Jessop, C. P.; Lingel, K.; Marsiske, H.; Perl, M. L.; Savinov, V.; Ugolini, D.; Zhou, X.; Coan, T. E.; Fadeyev, V.; Korolkov, I.; Maravin, Y.; Narsky, I.; Shelkov, V.; Staeck, J.; Stroynowski, R.; Volobouev, I.; Ye, J.; Artuso, M.; Azfar, F.; Efimov, A.; Goldberg, M.; He, D.; Kopp, S.; Moneti, G. C.; Mountain, R.; Schuh, S.; Skwarnicki, T.; Stone, S.; Viehhauser, G.; Wang, J. C.; Xing, X.; Bartelt, J.; Csorna, S. E.; Jain, V.; McLean, K. W.; Marka, S.; Godang, R.; Kinoshita, K.; Lai, I. C.; Pomianowski, P.; Schrenk, S.; Bonvicini, G.; Cinabro, D.; Greene, R.; Perera, L. P.; Zhou, G. J.; Chadha, M.; Chan, S.; Eigen, G.; Miller, J. S.; Schmidtler, M.; Urheim, J.; Weinstein, A. J.; Wurthwein, F.; Bliss, D. W.; Masek, G.; Paar, H. P.; Prell, S.; Sharma, V.; Asner, D. M.; Gronberg, J.; Hill, T. S.; Lange, D. J.; Morrison, R. J.; Nelson, H. N.; Roberts, D.; Behrens, B. H.; Ford, W. T.; Gritsan, A.; Roy, J.; Smith, J. G.; Alexander, J. P.; Baker, R.; Bebek, C.; Berger, B. E.; Berkelman, K.; Bloom, K.; Boisvert, V.; Cassel, D. G.; Crowcroft, D. S.; Dickson, M.; Von Dombrowski, S.; Drell, P. S.; Ecklund, K. M.; Ehrlich, R.; Foland, A. D.; Gairdarev, P.; Gibbons, L.; Gittelmann, B.; Gray, S. W.; Hartill, D. L.; Heltsley, B. K.; Hopman, P. I.; Kandaswamy, J.; Kim, P. C.; Kreinick, D. L.; Lee, T.; Liu,

Y.; Mistry, N. B.; Ng, C. R.; Nordberg, E.; Ogg, M.; Patterson, J. R.; Peterson, D.; Riley, D.; Soffer, A.; Valant-Spaight, B.; Ward, C.; Athanas, M.; Avery, P.; Jones, C. D.; Lohner, M.; Patton, S.; Prescott, C.; Yelton, J.; Zheng, J.  
CS Harvard University, Cambridge, MA, 02138, USA  
SO Physical Review D: Particles and Fields (1998), 58(5), 052003/1-052003/8  
CODEN: PRVDAQ; ISSN: 0556-2821  
PB American Physical Society  
DT Journal  
LA English  
AB A measurement of the spin alignment of charged D\* mesons produced in continuum e+e- → c-c events at  $\sqrt{s}=10.5$  GeV is presented. This study using 4.72 fb-1 of CLEO II data shows that there is little evidence of any D\* spin alignment.  
RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 23 OF 31 HCAPLUS COPYRIGHT 2004 ACS on STN \*  
AN 1997:625787 HCAPLUS  
DN 127:268690  
TI Energy and **charged** particle flow in 10.8A GeV/c Au+Au collisions. [Erratum to document cited in CA126:321836]  
AU Barrette, J.; Bellwied, R.; Bennett, S.; Braun-Munzinger, P.; Chang, W. C.; Cleland, W. E.; Clemen, M.; Cole, J.; Cormier, T. M.; David, G.; Dee, J.; Dietzsch, O.; Drigert, M.; Hall, J. R.; Hemmick, T. K.; Herrmann, N.; Hong, B.; Kwon, Y.; Lacasse, R.; Lukaszew, A.; Li, Q.; Ludlam, T. W.; Mark, S. K.; Matheus, R.; McCorkle, S.; Murgatroyd, J. T.; O'Brien, E.; Panitkin, S.; Piazza, T.; Pruneau, C.; Rao, M. N.; Rosati, M.; daSilva, N. C.; Sedykh, S.; Sonnadara, U.; Stachel, J.; Takagui, E. M.; Voloshin, S.; Wang, G.; **Wessels, J. P.**; Woody, C. L.; Xu, N.; Zhang, Y.; Zou, C.  
CS E877 Collaboration, Brookhaven Natl. Lab., Upton, NY, 1197793, USA  
SO Physical Review C: Nuclear Physics (1997), 56(4), 2336  
CODEN: PRVCAN; ISSN: 0556-2813  
PB American Physical Society  
DT Journal  
LA English  
AB The figures described sequentially in the text as 11, 12, and 13 correspond to the published Figs. 13, 11, and 12, resp.; the figure captions are correct in sequence as published.  
  
L29 ANSWER 24 OF 31 HCAPLUS COPYRIGHT 2004 ACS on STN \*  
AN 1997:196155 HCAPLUS  
DN 126:321836  
TI Energy and **charged** particle flow in 10.8 AGeV/c Au + Au collisions  
AU Barrette, J.; Bellwied, R.; Bennett, S.; Braun-Munzinger, P.; Chang, W. C.; Cleland, W. E.; Clemen, M.; Cole, J.; Cormier, T. M.; David, G.; Dee, J.; Dietzsch, O.; Drigert, M.; Hall, J. R.; Hemmick, T. K.; Herrmann, N.; Hong, B.; Kwon, Y.; Lacasse, R.; Lukaszew, A.; Li, Q.; Ludlam, T. W.; Mark, S. K.; Matheus, R.; McCorkle, S.; Murgatroyd, J. T.; O'Brien, E.; Panitkin, S.; Piazza, T.; Pruneau, C.; Rao, M. N.; Rosati, M.; da Silva, N. C.; Sedykh, S.; Sonnadara, U.; Stachel, J.; Takagui, E. M.; Voloshin, S.; Wang, G.; **Wessels, J. P.**; Woody, C. L.; Xu, N.; Zhang, Y.; Zou, C.  
CS E877 Collaboration, Brookhaven Natl. Lab., Upton, NY, 11973, USA  
SO Physical Review C: Nuclear Physics (1997), 55(3), 1420-1430  
CODEN: PRVCAN; ISSN: 0556-2813

PB American Physical Society  
DT Journal  
LA English

AB Exptl. results and a detailed anal. are presented of the transverse energy and charged particle azimuthal distributions measured by the E877 Collaboration for different centralities of Au + Au collisions at a beam momentum of 10.8 AGeV/c. The anisotropy of these distributions is studied with respect to the reaction plane reconstructed on an event-by-event basis using the transverse energy distribution measured by calorimeters. Results are corrected for the reaction plane resolution. For semicentral events we

observe directed flow signals of up to 10%. We observe a stronger anisotropy for slow charged particles. For both the charged particle and transverse energy distributions we observe a small but nonzero elliptic anisotropy with the major axis pointing into the reaction plane. Combining the information on transverse energy and charged particle flow we obtain information on the flow of nucleons and pions. The data are compared to event generators and the need to introduce a mean field or nucleon-nucleon potential is discussed.

L29 ANSWER 25 OF 31 HCAPLUS } COPYRIGHT 2004 ACS on STN

AN 1994:711713 HCAPLUS

DN 121:311713

TI Enhancement of FLC switching properties using SiO alignment layers combined with **charge**-transfer complexes

AU Matsui, Eriko; Nito, Keiichi; **Yasuda, Akio**

CS Res. Cent., Sony Corp., Yokohama, 240, Japan

SO Ferroelectrics (1993), 149(1-4), 97-107

CODEN: FEROA8; ISSN: 0015-0193

DT Journal

LA English

AB We have previously reported that an overlayer of tetrathiafulvalene-tetracyanoquinodimethane (TTF-TCNQ), a conductive material, on the SiO layers is effective in shortening the response time of FLCs (ferroelec. liquid crystal displays). In this paper, we demonstrated that FLC mixts. with larger spontaneous polarization values reveal more clearly the effect of an overlayer of TTF-TCNQ. Addnl., the b axis, which is the highest conductive direction, of the TTF-TCNQ complex was found to be aligned along the SiO pillars. The TTF-TCNQ did not form a complete film on the SiO films, but was localized in the regions between the SiO pillars. The results indicate that the TTF-TCNQ complex links the FLC to the electrode, providing a low-resistance path between the two and thus reducing the accumulated surface charge.

L29 ANSWER 26 OF 31 HCAPLUS } COPYRIGHT 2004 ACS on STN **X**

AN 1993:177349 HCAPLUS

DN 118:177349

TI Tau decays with one **charged** particle plus multiple  $\pi^0$ 's

AU Procario, M.; Yang, S.; Balest, R.; Cho, K.; Daoudi, M.; **Ford, W.**

**T.**; Johnson, D. R.; Lingel, K.; Lohner, M.; et al.

CS Carnegie-Mellon Univ., Pittsburgh, PA, 15213, USA

SO Physical Review Letters (1993), 70(9), 1207-11

CODEN: PRLTAO; ISSN: 0031-9007

DT Journal

LA English

AB With the CLEO-II detector at the Cornell Electron Storage Ring, we have measured branching fractions for tau lepton decay into one-prong final states with multiple  $\pi^0$ 's,  $B(\tau \rightarrow \pi^0 \text{lepton})$ , normalized to the branching

fraction for tau decay into one charged particle and a single  $\pi^0$ . We find  $Bh2\pi^0/Bh\pi^0 = 0.345 \pm 0.006 \pm 0.016$ ,  $Bh3\pi^0/Bh\pi^0 = 0.041 \pm 0.003 \pm 0.005$ , and  $Bh4\pi^0/Bh\pi^0 = 0.006 \pm 0.002 \pm 0.002$ .

- L29 ANSWER 27 OF 31 HCAPLUS COPYRIGHT 2004 ACS on STN ✕  
AN 1989:161689 HCAPLUS  
DN 110:161689  
TI A measurement of the  $e^+e^- \rightarrow b\text{-hivin.b}$  forward-backward **charge** asymmetry at  $\sqrt{s} = 29$  GeV  
AU Band, H. R.; Camporesi, T.; Chadwick, G. B.; Delfino, M. C.; De Sangro, R.; **Ford, W. T.**; Gettner, M. W.; Goderre, G. P.; Groom, D. E.; et al.  
CS Dep. Phys., Univ. Colorado, Boulder, CO, 80309, USA  
SO Physics Letters B (1989), 218(3), 369-73  
CODEN: PYLBAJ; ISSN: 0370-2693  
DT Journal  
LA English  
AB High- $p_T$  inclusive  $\mu$  events produced in  $e^+e^-$  annihilations at  $\sqrt{s} = 29$  GeV were analyzed to obtain a measurement of the  $b\text{-hivin.b}$  forward-backward charge asymmetry. The result  $A_b = 0.034 \pm 0.070 \pm 0.035$  differs from the theor. expectation (-0.16) unless substantial  $B^0\text{-hivin.B}^0$  mixing is assumed.
- L29 ANSWER 28 OF 31 HCAPLUS COPYRIGHT 2004 ACS on STN ✕  
AN 1988:175235 HCAPLUS  
DN 108:175235  
TI Observation of **charge** asymmetry in hadron jets from  $e^+e^-$  annihilation at  $\sqrt{s} = 29$  GeV  
AU Lavine, Theodore L.; Ash, W. W.; Band, H. R.; Camporesi, T.; Chadwick, G. B.; Delfino, M. C.; De Sangro, R.; **Ford, W. T.**; Gettner, M. W.; et al.  
CS Dep. Phys., Univ. Wisconsin, Madison, WI, 53706, USA  
SO Proceedings of the Rencontre de Moriond (1987), 22nd(Vol. 1, Stand. Model/Supernova 1987A), 79-82  
CODEN: PREMD5; ISSN: 1148-5825  
DT Journal  
LA English  
AB A charge asymmetry was observed with the MAC detector in an inclusive sample of 2-jet events resulting from  $e^+e^-$  annihilation into quark pairs of all flavors at  $\sqrt{s} = 29$  GeV. The measured asymmetry is consistent with the prediction of electroweak theory. The weak axial-vector quark coupling constant corresponding to the charge asymmetry is  $g_{Aq} = +0.68 \pm 0.12 \pm 0.10$ , averaged over all quark flavors.
- L29 ANSWER 29 OF 31 HCAPLUS COPYRIGHT 2004 ACS on STN ✕  
AN 1987:145367 HCAPLUS  
DN 106:145367  
TI Observation of **charge** asymmetry in hadron jets from  $e^+e^-$  annihilation at  $\sqrt{s} = 29$  GeV  
AU Ash, W. W.; Band, H. R.; Camporesi, T.; Chadwick, G. B.; Delfino, M. C.; De Sangro, R.; **Ford, W. T.**; Gettner, M. W.; Goderre, G. P.; et al.  
CS Dep. Phys., Univ. Colorado, Boulder, CO, 80309, USA  
SO Physical Review Letters (1987), 58(11), 1080-3  
CODEN: PRLTAO; ISSN: 0031-9007  
DT Journal  
LA English

AB A charge asymmetry was observed in final-state jets from  $e^+e^-$  annihilation into hadrons at  $\sqrt{s} = 29$  GeV. The measured asymmetry is consistent with the prediction of electroweak theory. The product of axial-vector weak coupling consts., averaged over all quark flavors, is determined to be  $-0.34 \pm 0.06 \pm 0.05$ .

L29 ANSWER 30 OF 31 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1977:62000 HCAPLUS

DN 86:62000

TI Recent results on  $\nu$ ,  $\bar{\nu}$  **charged** current interactions at NAL

AU Aubert, B.; Benvenuti, A.; Cline, D.; **Ford, W. T.**; Imlay, R.; Ling, T. Y.; Mann, A. K.; Messing, F.; Piccioni, R. L.; et al.

CS Harvard Univ., Cambridge, MA, USA

SO C. R. Rencontre Moriond, 9th (1974), Volume 2, 75-86. Editor(s): Tran Thanh Van, Jean. Publisher: Rencontre Moriond, Lab. Phys. Theor. Part. Elem., Orsay, Fr.

CODEN: 34FIAI

DT Conference

LA English

AB Preliminary results are presented for the distributions of the scaling variables observed in  $\nu$  interactions. The dependence of the  $\nu$  cross section on energy was measured for  $\leq 160$  GeV. The ratio  $\sigma_{\text{anti-}\nu}/\sigma_{\nu}$  was measured for  $\leq 70$  GeV. The  $\nu Z \rightarrow \mu^- + \text{all}$  and  $\bar{\nu} Z \rightarrow \mu^+ + \text{all}$  reactions were investigated.

L29 ANSWER 31 OF 31 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1971:26781 HCAPLUS

DN 74:26781

TI Search for violation of CP [**charge** conjugation parity] invariance in  $\tau^+$ -decay

AU **Ford, William T.**; Piroue, Pierre A.; Remmel, Ronald S.; Smith, Arthur J. S.; Souder, Paul A.

CS Joseph Henry Lab., Princeton Univ., Princeton, NJ, USA

SO Physical Review Letters (1970), 25(19), 1370-3

CODEN: PRLTAO; ISSN: 0031-9007

DT Journal

LA English

AB A comparison is reported of the Dalitz-plot distributions of 1.6 million  $\tau^+$  decays ( $K^+ \rightarrow \pi^+\pi^+\pi^-$ ) and an equal number of  $\tau^-$  decays. No significant asymmetry was found in any region of the plot. In terms of the difference in the slope parameters  $a^+$  and  $a^-$  for the odd-pion center-of-mass-energy spectra, the asymmetry is  $\Delta = (a^+ - a^-)/(a^+ + a^-) = -0.0070 \pm 0.0053$ . A preliminary result is also presented for the slope parameter itself:  $a = 0.283 \pm 0.005$ . New measurements of the  $\tau^\pm$  decay rates and their difference confirm previous results.

=> log h

1 of 3

=> file caplus

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STRUCTURE FILE UPDATES: 10 FEB 2004 HIGHEST RN 648858-13-3  
DICTIONARY FILE UPDATES: 10 FEB 2004 HIGHEST RN 648858-13-3

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:  
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Headings for  
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=> file hcaplus

FILE 'HCAPLUS' ENTERED AT 11:22:45 ON 11 FEB 2004  
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FILE COVERS 1907 - 11 Feb 2004 VOL 140 ISS 7  
FILE LAST UPDATED: 10 Feb 2004 (20040210/ED)

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=> file beilstein

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FILE RELOADED ON OCTOBER 20, 2002  
FILE LAST UPDATED ON DECEMBER 15, 2003

FILE COVERS 1771 TO 2003.  
\*\*\* FILE CONTAINS 8,861,754 SUBSTANCES \*\*\*

>>> PLEASE NOTE: Reaction data and substance data are stored in separate documents and can not be searched together in one query.

Reaction data for BEILSTEIN compounds may be displayed immediately with the display codes PRE (preparations) and REA (reactions). A substance answer set retrieved after the search for a chemical name, a molecular formula or a structure search for example can be restricted to compounds with available reaction information by concatenation with PRE/FA, REA/FA or more general with RX/FA. The BEILSTEIN Registry Number (BRN) is the link between a BEILSTEIN compound and belonging reactions. For more detailed reaction searches BRNs can be selected from substance answer sets and searched in the next step as reaction partner BRNs - Reactant (RX.RBRN) or Product BRN (RX.PBRN). After a search for reaction details substance documents associated with reactants or products may be retrieved by searching RX.PBRNs or RX.RBRNs as BRNs. <<<

>>> FOR SEARCHING PREPARATIONS SEE HELP PRE <<<

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\* ARE BASED ON THE HIGHEST PRICE CATEGORY. THEREFORE; THESE \*  
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=> file marpat

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FILE CONTENT: 1988-PRESENT (VOL 140 ISS 06) (20040206 ED)

MOST RECENT CITATIONS FOR PATENTS FROM FIVE MAJOR ISSUING AGENCIES  
(COVERAGE TO THESE DATES IS NOT COMPLETE):

US 6673954 06 JAN 2004  
DE 10317295 08 JAN 2004  
EP 1380632 14 JAN 2004  
JP 2004014584 15 JAN 2004  
WO 2004004674 15 JAN 2004

Structure search limits have been raised. See HELP SLIMIT for the new,  
higher limits.

=> FIL STNGUIDE

FILE 'STNGUIDE' ENTERED AT 11:23:08 ON 11 FEB 2004  
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AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

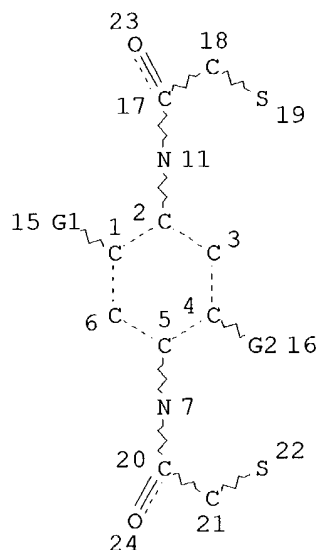
FILE CONTAINS CURRENT INFORMATION.  
LAST RELOADED: Feb 6, 2004 (20040206/UP).

=> d que stat 120  
L18 STR

*Headings  
for files  
used.*



L18 STR



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G2 = R<sub>2</sub>

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VAR G2=AK/CL  
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DEFAULT ECLEVEL IS LIMITED

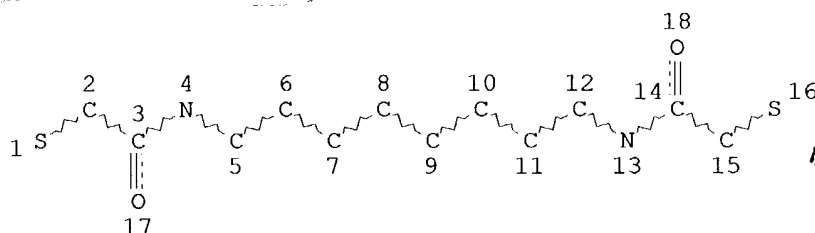
GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 18

STEREO ATTRIBUTES: NONE

L19 { 2) SEA FILE=REGISTRY SSS FUL L18  
L20 { 2 SEA FILE=HCAPLUS ABB=ON PLU=ON L19

search structure  
search for references  
in HCAPLUS

=> {d que stat 15  
L3 { STR }



"1,8-dimercaptoacetamido-octane"

NODE ATTRIBUTES:  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 18

STEREO ATTRIBUTES: NONE

(structure based on  
those found in the  
CAPLUS record for the  
patent application)

L4  
L52 SEA FILE=REGISTRY **SSS FUL L3**

1 SEA FILE=HCAPLUS ABB=ON PLU=ON L4

*search for structures**search for references  
in HCAPLUS*=> d que stat l14 *Other named compounds*L11 5 SEA FILE=REGISTRY ABB=ON PLU=ON (437655-42-0 OR 437655-41-9  
OR 433713-40-7 OR 437655-43-1 OR 46350-14-5)/RNL12 13 SEA FILE=REGISTRY ABB=ON PLU=ON (437655-42-0 OR 437655-41-9  
OR 433713-40-7 OR 437655-43-1 OR 46350-14-5)/CRN

L13 18 SEA FILE=REGISTRY ABB=ON PLU=ON L11 OR L12

L14 23 SEA FILE=HCAPLUS ABB=ON PLU=ON L13

*RU: registry number; CRN: component registry  
number*

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YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS' - CONTINUE? (Y)/N:y

*\* Query finds  
exact structures  
and mixtures,  
but not  
derivatives \**

YOU HAVE REQUESTED DATA FROM 24 ANSWERS - CONTINUE? Y/(N):y

L21 ANSWER 1 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:775298 HCAPLUS

DOCUMENT NUMBER: 138:65582

TITLE: Tetrathiocarbamate complexes and forced configurations

AUTHOR(S): Ramakrishnan, V.; Sridharan, K.

CORPORATE SOURCE: Post-Graduate &amp; Research Department of Chemistry,

National College, Tiruchirapalli, 620 001, India

SOURCE: Journal of the Indian Chemical Society (2002), 79(9),  
719-721

CODEN: JICSAH; ISSN: 0019-4522

PUBLISHER: Indian Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

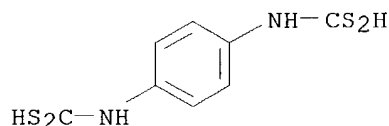
OTHER SOURCE(S): CASREACT 138:65582

IT 46350-14-5P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(preparation and complexation with transition metal ions)

RN 46350-14-5 HCAPLUS

CN Carbamodithioic acid, 1,4-phenylenebis- (9CI) (CA INDEX NAME)



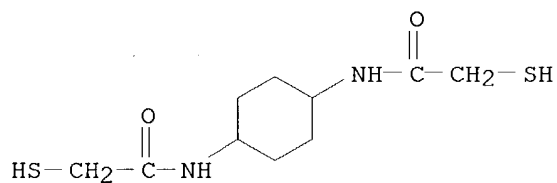
AB Oxovanadium(II), Co(II), Ni(II) and Cu(II) complexes of tetrathiocarbamates of ortho-, meta- and para- phenylenediamines (OPDTTC, MPDTTC and PPDTC) were synthesized. Co remains in the +2 state and is not spontaneously oxidized to +3 during complexation, which may be attributed to the structural rigidity imposed by the ligands. All the complexes show metal-metal interaction with the exception of oxovanadium(II) complexes, which do not show metal-metal interaction. The Cu complexes are diamagnetic indicating a strong metal-metal interaction through the ligand by super-exchange mechanism.

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

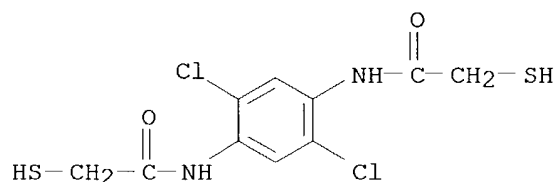
L21 ANSWER 2 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 2002:462542 HCAPLUS  
 DOCUMENT NUMBER: 137:15023  
 TITLE: Selective chemical sensors based on interlinked  
 nanoparticle assemblies  
 INVENTOR(S): Vossmeier, Tobias; Besnard, Isabelle; Wessels, Jurina;  
 Ford, William; Yasuda, Akio  
 PATENT ASSIGNEE(S): Sony International (Europe) G.m.b.H., Germany  
 SOURCE: Eur. Pat. Appl., 37 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1215485	A1	20020619	EP 2000-127149	20001212
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
AU 2001097083	A5	20020613	AU 2001-97083	20011205
US 2002132361	A1	20020919	US 2001-13388	20011211
CN 1359002	A	20020717	CN 2001-145459	20011212
JP 2002228616	A2	20020814	JP 2001-379139	20011212
PRIORITY APPLN. INFO.:		EP 2000-127149 A 20001212		

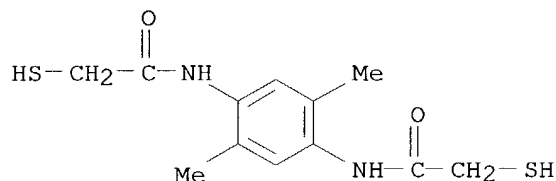
IT 433713-40-7 433713-41-8 433713-42-9  
 RL: ARG (Analytical reagent use); DEV (Device component use); ANST  
 (Analytical study); USES (Uses)  
 (volatile organic compds. determination by selective chemical sensors based  
 on  
 interlinked nanoparticle assemblies)  
 RN 433713-40-7 HCAPLUS  
 CN Acetamide, N,N'-1,4-cyclohexanediylbis[2-mercapto- (9CI) (CA INDEX NAME)



RN 433713-41-8 HCAPLUS  
 CN Acetamide, N,N'-(2,5-dichloro-1,4-phenylene)bis[2-mercapto- (9CI) (CA INDEX NAME)



RN 433713-42-9 HCAPLUS  
 CN Acetamide, N,N'-(2,5-dimethyl-1,4-phenylene)bis[2-mercapto- (9CI) (CA  
 INDEX NAME)



AB The invention relates to a nanoparticle film comprising a nanoparticle network formed of nanoparticles interlinked by linker mols. The linker mols. have at least two linker units that can bind to the surface of the nanoparticles. By introducing selectivity-enhancing units in the linker mol., the selectivity of the nanoparticle film towards target analytes can be enhanced. A fine-tuning of the selectivity can be achieved by including a fine-tuning unit in the vicinity of the selectivity-enhancing unit. The nanoparticle film can be used to produce chemical sensors which are selective and stable in their performance.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 3 OF 24 HCAPLUS } COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:462494 HCAPLUS

DOCUMENT NUMBER: 137:40117

TITLE: Tuned multifunctional linker molecules for electronic charge transport through organic-inorganic composite structures and use thereof

INVENTOR(S): Ford, William E.; Wessels, Jurina; Yasuda, Akio

PATENT ASSIGNEE(S): Sony International (Europe) G.m.b.H., Germany

SOURCE: Eur. Pat. Appl., 36 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

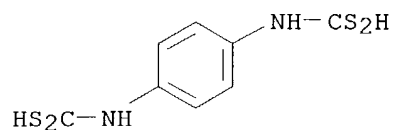
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

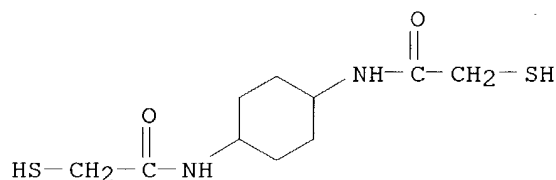
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EP 1215205	A1	20020619	EP 2000-126968	20001208
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US 2002127756	A1	20020912	US 2001-6636	20011206
JP 2002265433	A2	20020918	JP 2001-374916	20011207
PRIORITY APPLN. INFO.:			EP 2000-126968	A 20001208
IT 46350-14-5P 433713-40-7P 433713-41-8P				
433713-42-9P 437655-41-9P 437655-42-0P				
437655-43-1P				
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)				
(tuned multifunctional linker mols. for electronic charge transport through organic-inorg. composite structures and use thereof)				
RN	46350-14-5 HCAPLUS			

CN Carbamodithioic acid, 1,4-phenylenebis- (9CI) (CA INDEX NAME)



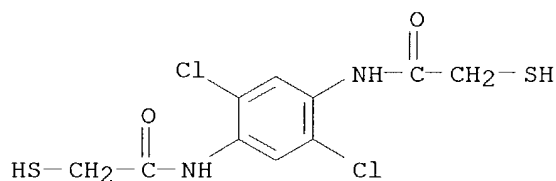
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CN Acetamide, N,N'-1,4-cyclohexanediylbis[2-mercapto- (9CI) (CA INDEX NAME)



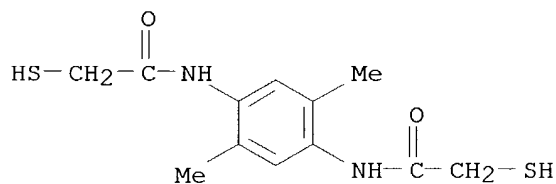
RN 433713-41-8 HCAPLUS

CN Acetamide, N,N'-(2,5-dichloro-1,4-phenylene)bis[2-mercapto- (9CI) (CA INDEX NAME)



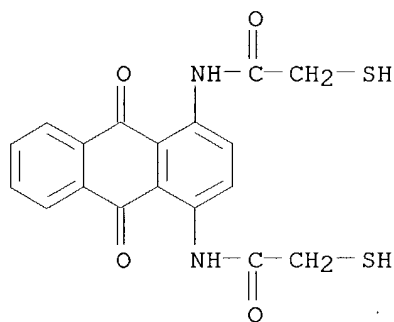
RN 433713-42-9 HCAPLUS

CN Acetamide, N,N'-(2,5-dimethyl-1,4-phenylene)bis[2-mercapto- (9CI) (CA INDEX NAME)



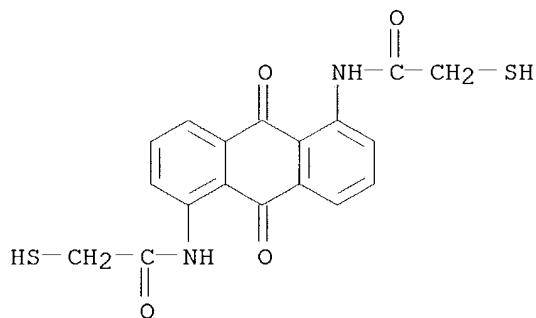
RN 437655-41-9 HCAPLUS

CN Acetamide, N,N'-(9,10-dihydro-9,10-dioxo-1,4-anthracenediyl)bis[2-mercapto- (9CI) (CA INDEX NAME)



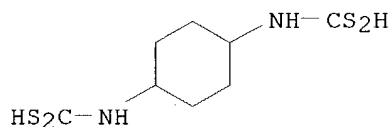
RN 437655-42-0 HCAPLUS

CN Acetamide, N,N'-(9,10-dihydro-9,10-dioxo-1,5-anthracenediyl)bis[2-mercapto-  
(9CI) (CA INDEX NAME)



RN 437655-43-1 HCAPLUS

CN Carbamodithioic acid, 1,4-cyclohexanediylbis- (9CI) (CA INDEX NAME)



AB The problem underlying the present invention is to provide multifunctional linker mols. for tuning the conductivity in nanoparticle-linker assemblies which

can be used in the formation of electronic networks and circuits and thin films of nanoparticles. The problem is solved according to the invention by providing a multifunctional linker mol. of the general structure CON1-FUNC1-X-FUNC2-CON2 in which X is the central body of the mol., FUNC1 and FUNC2 independently of each other are mol. groups introducing a dipole moment and/or capable of forming intermol. and/or intramol. H bonding networks, and CON1 and CON2 independently of each other are mol. groups binding to nanostructured units comprising metal and semiconductor materials.

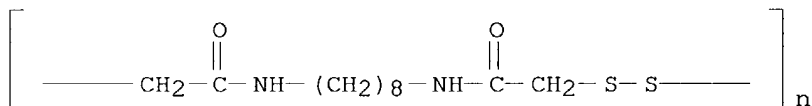
REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 4 OF 24 HCAPLUS } COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 2000:859343 HCAPLUS  
 DOCUMENT NUMBER: 134:88704  
 TITLE: Electrochemical behavior of polyamides with cyclic disulfide structure and their application to positive active material for lithium secondary battery  
 AUTHOR(S): Tsutsumi, Hiromori; Oyari, Yoshiaki; Onimura, Kenjiro; Oishi, Tsutomu  
 CORPORATE SOURCE: Department of Applied Chemistry and Chemical Engineering, Yamaguchi University, Ube, 755-8611, Japan  
 SOURCE: Journal of Power Sources (2001), 92(1-2), 228-233  
 CODEN: JPSODZ; ISSN: 0378-7753  
 PUBLISHER: Elsevier Science S.A.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 IT 316807-25-7

RL: DEV (Device component use); USES (Uses)  
 (electrochem. behavior of polyamides with cyclic disulfide structure and their application as cathode material for lithium secondary battery)

RN 316807-25-7 HCAPLUS

CN Poly[dithio(2-oxo-1,2-ethanediy)imino-1,8-octanediy]limino(1-oxo-1,2-ethanediy)] (9CI) (CA INDEX NAME)

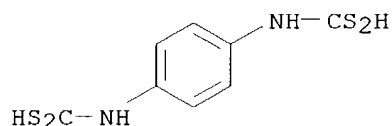


AB Polyamides (DTA-I, DTA-II, and DTA-III) containing cyclic disulfide structure were prepared by condensation between 1,2-dithiane-3,6-dicarboxylic acid (DTA) and alkyl diamine,  $\text{NH}_2\text{---}(\text{CH}_2)_n\text{---NH}_2$  (DTA-I;  $n=4$ , DTA-II;  $n=6$ , DTA-III;  $n=8$ ) and their application to pos. active material for lithium secondary batteries was investigated. Cyclic voltammetry (CV) measurements under slow sweep rate (0.5 mV/s) with a carbon paste electrode containing the polyamide (DTA-I, DTA-II, or DTA-III) were performed. The results indicated that the polyamides were electroactive in the organic electrolyte solution (propylene carbonate (PC)-1,2-dimethoxyethane (DME), 1:1 by volume containing lithium salt, such as  $\text{LiClO}_4$ ). The responses based on the redox of the disulfide bonds in the polyamide were observed. Test cells, Li/PC-DME (1:1 by volume) with 1 mol dm<sup>-3</sup>  $\text{LiClO}_4$ /the polyamide cathode, were constructed and their performance was tested under constant current charge/discharge condition. The average capacity of the test cells with the DTA-III cathode was 64.3 Ah/kg of cathode (135 Wh/kg of cathode, capacity (Ah/kg) of the cathode+average cell voltage (2.10 V)). Performance of the cell with linear polyamide containing disulfide bond ( $\text{---CO---}(\text{CH}_2)_2\text{---S---S---}(\text{CH}_2)_2\text{---CONH---}(\text{CH}_2)_8\text{---NH---}$ , GTA-III) was also investigated and the average capacity was 56.8 Ah/kg of cathode (100 Wh/kg of cathode, capacity (Ah/kg) of the cathode+average cell voltage (1.76 V)). Cycle efficiency of the test cell with the DTA-III cathode was higher than that with the GTA-III cathode.

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 5 OF 24 HCAPLUS } COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1999:139373 HCAPLUS  
 DOCUMENT NUMBER: 130:275650  
 TITLE: Some complexes of tetrathiocarbamates with cobalt(II), nickel(II) and copper(II)  
 AUTHOR(S): Sallomi, Issam; Al-Zeadan, Wijdan; Ibrahim, Nehad  
 CORPORATE SOURCE: Department of Chemistry, Mosul University, Mosul, Iraq  
 SOURCE: Dirasat: Natural and Engineering Sciences (1997), 24(1), 141-147  
 CODEN: DNEFZ; ISSN: 1026-3756  
 PUBLISHER: University of Jordan, Deanship of Academic Research  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 IT 222053-76-1, Dipotassium p-phenylenebis(dithiocarbamate)  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reactant for preparation of cobalt(II), nickel(II) and copper(II) phenylenebis(dithiocarbamate) complexes)  
 RN 222053-76-1 HCAPLUS  
 CN Carbamodithioic acid, 1,4-phenylenebis-, dipotassium salt (9CI) (CA INDEX NAME)



● 2 K

AB Tetrathiocarbamate complexes of some 1st row transition elements  $[\text{M}(\text{L})]$  and  $\text{K}_2[\text{M}_2(\text{L})\text{Cl}_4]$  where  $\text{M}$  = cobalt(II), nickel(II) and copper(II), and  $\text{L}$  = TEN, TOPD and TPPD, are the tetrathiocarbamate ligands derived from ethylenediamine, ortho and para-phenylenediamine, resp. were synthesized and characterized from their elemental anal., molar conductance, magnetic susceptibility, IR and electronic spectral measurements. The studies of the complexes revealed two different behaviors of the ligands. TEN and TOPD act as dibasic tetradentate with the formation of neutral mononuclear complexes, while TPPD behaves as dibasic tetradentate bridging ligand with the formation of anionic dinuclear complexes. The results of magnetic moment and electronic spectral measurements indicate tetrahedral arrangement for cobalt(II) complexes and square planar for nickel(II) and copper(II) complexes.

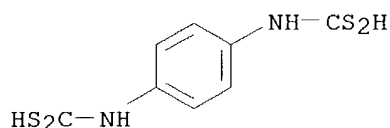
REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 6 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1996:110817 HCAPLUS  
 DOCUMENT NUMBER: 124:218490  
 TITLE: Some complexes of tetrathiocarbamate  
 AUTHOR(S): Sallomi, I.J.; Al-Zeadan, W.A.G.; Ibrahim, N.H.  
 CORPORATE SOURCE: College of Education, University of Mosul, Mosul, Iraq  
 SOURCE: Dirasat - University of Jordan, Series B: Pure and Applied Sciences (1995), 22B(1), 161-70  
 CODEN: DJSSE8  
 PUBLISHER: University of Jordan, Dean of Academic Research



DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 IT **46350-14-5P**, Phenylene-1,4-bis(dithiocarbamic acid)  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (preparation and reaction with transition metal salts)  
 RN 46350-14-5 HCAPLUS  
 CN Carbamodithioic acid, 1,4-phenylenebis- (9CI) (CA INDEX NAME)



AB Several new complexes [M(TEN)] and Na<sub>2</sub> [M<sub>2</sub>(TPD)Cl<sub>4</sub>] (M = Zn(II), Cd(II) and Hg(II) and TEN, TPD are tetrathiocarbamate ligands derived from ethylenediamine and p-phenylenediamine, resp.) were prepared in aqueous solution  
 The 1:1 (metal-ligand ratio) complexes were characterized from their elemental anal., molar conductances and IR absorption spectra. In all the prepared compds., the ligands act as dibasic tetradentate and form neutral and anionic tetracoordinated metal complexes.

L21 ANSWER 7 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1995:552149 HCAPLUS

DOCUMENT NUMBER: 123:37617

TITLE: Synthesis and designing of polymeric reagents for specific separation of metal ions

AUTHOR(S): Bajpai, U D N.; Nivedita; Bajpai, Anjali

CORPORATE SOURCE: Dept. Chemistry, Rani Durgavati Vishwavidyalaya, Jabalpur, India

SOURCE: Adv. Chem. Eng. Nucl. Process Ind. (1994), 477-81.  
 Bhabha At. Res. Cent.: Bombay, India.

CODEN: 61FQAK

DOCUMENT TYPE: Conference

LANGUAGE: English

IT **164177-58-6 164177-60-0 164177-62-2**  
**164230-64-2**

RL: NUU (Other use, unclassified); USES (Uses)

(synthesis and design of polymeric reagents for separation of metal ions)

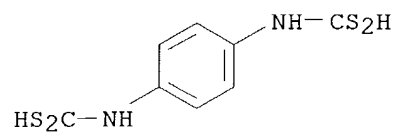
RN 164177-58-6 HCAPLUS

CN Carbamodithioic acid, 1,4-phenylenebis-, disodium salt, polymer with 1,4-bis(chloromethyl)benzene (9CI) (CA INDEX NAME)

CM 1

CRN 14549-85-0

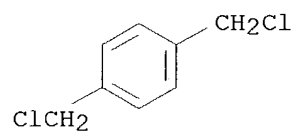
CMF C8 H8 N2 S4 . 2 Na



● 2 Na

CM 2

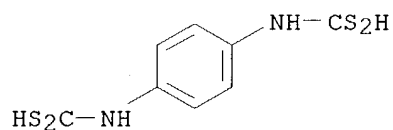
CRN 623-25-6  
CMF C8 H8 Cl2



RN 164177-60-0 HCAPLUS  
CN Carbamodithioic acid, 1,4-phenylenebis-, disodium salt, polymer with ethenylbenzene, graft (9CI) (CA INDEX NAME)

CM 1

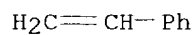
CRN 14549-85-0  
CMF C8 H8 N2 S4 . 2 Na



● 2 Na

CM 2

CRN 100-42-5  
CMF C8 H8



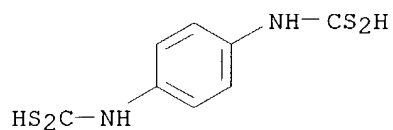
RN 164177-62-2 HCAPLUS

CN Carbamodithioic acid, 1,4-phenylenebis-, disodium salt, polymer with  
1,4-bis(chloromethyl)benzene and ethenylbenzene, graft (9CI) (CA INDEX  
NAME)

CM 1

CRN 14549-85-0

CMF C8 H8 N2 S4 . 2 Na

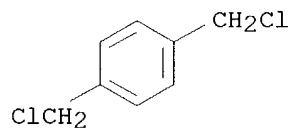


● 2 Na

CM 2

CRN 623-25-6

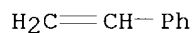
CMF C8 H8 Cl2



CM 3

CRN 100-42-5

CMF C8 H8



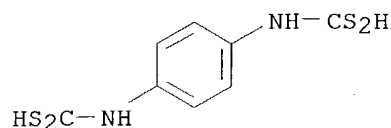
RN 164230-64-2 HCAPLUS

CN Carbamodithioic acid, 1,4-phenylenebis-, disodium salt, homopolymer (9CI)  
(CA INDEX NAME)

CM 1

CRN 14549-85-0

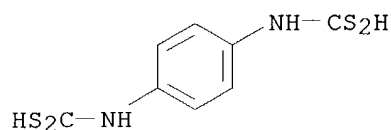
CMF C8 H8 N2 S4 . 2 Na



● 2 Na

AB S- and N-containing compds. like thioureas, dithiooxamides and dithiocarbamates have been used in metal extraction by the coordination method or by adsorption. Polymeric reagents containing S and N atoms have rarely been used as separating reagents. The synthesis of a series of multifunctional polymeric reagents and their application to metal separation has been discussed. Multifunctional polymeric reagents may be defined as a polymer consisting of a number of chelating functional groups along the main chain. Such polymeric reagents may also function as polymeric initiator for the synthesis of another variety of multifunctional polymeric reagents. The synthesis of following types of multifunctional polymers and their applications as separating polymeric reagents are described: (1) multifunctional polymer reagent having S-S bonds such as poly(ethylenebisdithiocarbamate) or poly(phenylenebisdithiocarbamate) (2) multifunctional polymeric reagents having C-S bonds such as poly(ethylebisdithiocarbamate-co-xylene) or poly(phenylenebisdithiocarbamate-co-xylene) (3) multifunctional polymeric reagents obtained by thermal polymerization of styrene with the above mentioned four compds.

L21 ANSWER 8 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1994:425469 HCAPLUS  
 DOCUMENT NUMBER: 121:25469  
 TITLE: Structural and electronic properties of some new m- and p-phenylenebisdithiocarbamate polymers  
 AUTHOR(S): Xanthopoulos, C. E.; Hadjikostas, C. C.; Katsoulos, G. A.  
 CORPORATE SOURCE: Dep. Chem., Aristotle Univ., Thessaloniki, 540 06, Greece  
 SOURCE: International Journal of Chemistry (1993), 4(3), 69-79  
 CODEN: INJCEW  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 IT 102148-83-4P, Diammonium p-phenylenebisdithiocarbamate  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation and complexation of, with transition metals)  
 RN 102148-83-4 HCAPLUS  
 CN Carbamodithioic acid, 1,4-phenylenebis-, diammonium salt (9CI) (CA INDEX NAME)



● 2 NH<sub>3</sub>

AB [M(m-PBDTC)]<sub>n</sub> and [M(p-PBDTC)]<sub>n</sub> (M = Ni, Cu, Co, Mn or Zn; and m-PBDTCH<sub>2</sub> or p-PBDTCH<sub>2</sub> = m- and p-phenylenebisdithiocarbamic acid) were prepared and studied. The structures of the new compds. are discussed in relation to their spectroscopic and magnetic properties. The results of PM3 MO calcns. also were used to elucidate some aspects of their structural and electronic properties.

L21 ANSWER 9 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1990:169090 HCAPLUS

DOCUMENT NUMBER: 112:169090

TITLE: Bisazo compounds, their preparation, and electrophotographic photoconductors containing the bisazo compounds

INVENTOR(S): Nishiguchi, Toshihiko

PATENT ASSIGNEE(S): Mita Industrial Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01261463	A2	19891018	JP 1988-89732	19880412
PRIORITY APPLN. INFO.:			JP 1988-89732	19880412

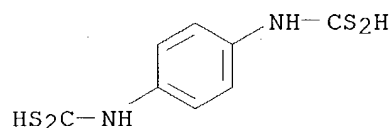
IT **102148-83-4P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and reaction of, with chloroacetic ester, electrophotog. charge generators from)

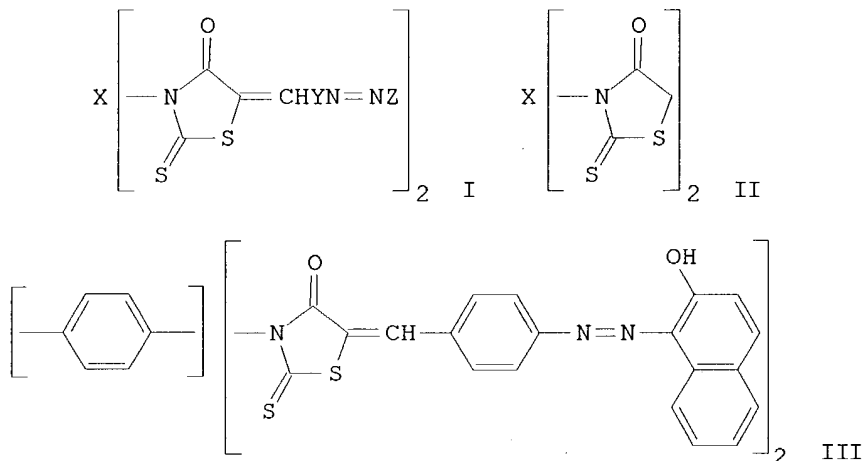
RN 102148-83-4 HCAPLUS

CN Carbamodithioic acid, 1,4-phenylenebis-, diammonium salt (9CI) (CA INDEX NAME)



● 2 NH<sub>3</sub>

GI



AB The compds. have structure I (X, Y, Z = alkylene, arylene). These are prepared by condensation of rhodanine derivs. II with OHCYN:NZ. The invention photoconductors contain these compds. and charge carrier-transporting agents in the same or sep. layers. These compds. are highly dispersible in polymers, and provide high photosensitivity to visible light. Thus, phenylenebisrhodanine obtained by reaction of p-phenylenediamine with CS<sub>2</sub> and Et chloroacetate was condensed with 1-(p-formylphenylazo)-2-naphthol obtained from p-aminobenzaldehyde by diazotization and coupling with β-naphthol, to obtain a bisazo compound III. Photoconductor containing this compound as charge generator showed high sensitivity.

L21 ANSWER 10 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1987:636880 HCAPLUS

DOCUMENT NUMBER: 107:236880

TITLE: Synthesis and characterization of new organotin(IV)-phenylenebis(dithiocarbamate) complexes  
 AUTHOR(S): Lee, Won Ho; Jung, Ok Sang; Sohn, Youn Soo; Kim, Poongzag

CORPORATE SOURCE: Inorg. Chem. Lab., Korea Adv. Inst. Sci. Technol., Seoul, 131, S. Korea

SOURCE: Bulletin of the Korean Chemical Society (1986), 7(6), 421-5

CODEN: BKCSDE; ISSN: 0253-2964

DOCUMENT TYPE: Journal

LANGUAGE: English

IT 111459-64-4P

RI: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
 (preparation and spectra of)

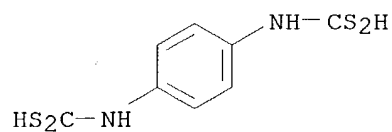
RN 111459-64-4 HCAPLUS

CN Carbamodithioic acid, 1,4-phenylenebis-, disodium salt, polymer with dichlorodimethylstannane (9CI) (CA INDEX NAME)

CM 1

CRN 14549-85-0

CMF C8 H8 N2 S4 . 2 Na

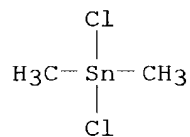


● 2 Na

CM 2

CRN 753-73-1

CMF C2 H6 Cl2 Sn



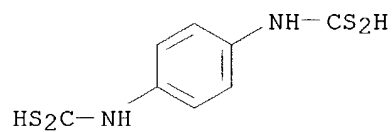
IT 14549-85-0

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, with diorganotin dichlorides or with triphenyltin chloride)

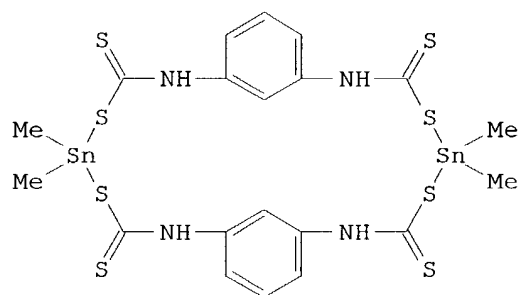
RN 14549-85-0 HCAPLUS

CN Carbamodithioic acid, 1,4-phenylenebis-, disodium salt (9CI) (CA INDEX NAME)



● 2 Na

GI



II

AB Reaction of  $R_2SnCl_2$  ( $R = Me, cyclohexyl, Bu$ ) with  $m-(NaS_2CNH)_2C_6H_4$  (I) gave dimeric 1:1 products, e.g., II. Similar reaction of  $p-(NaS_2CNH)_2C_6H_4$  (III) gave oligomeric or polymeric products. Reaction of either I or III with  $Ph_3SnCl$  gave monomeric complexes  $(Ph_3Sn)_2.(S_2CNH)_2C_6H_4$ .

L21 ANSWER 11 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1987:156011 HCAPLUS

DOCUMENT NUMBER: 106:156011

TITLE: Synthesis of new dithiocarbamates

AUTHOR(S): Hu, Zhenshan; Zheng, Donngshuei; Zheng, Jinghe; Liu, Guozhi

CORPORATE SOURCE: Changchun Inst. Appl. Chem., Acad. Sin., Changchun, Peop. Rep. China

SOURCE: Yingyong Huaxue (1986), 3(4), 75-7

CODEN: YIHUED; ISSN: 1000-0518

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

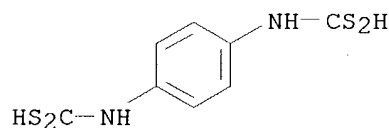
OTHER SOURCE(S): CASREACT 106:156011

IT 102148-83-4P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 102148-83-4 HCAPLUS

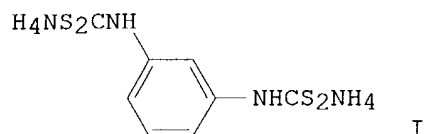
CN Carbamodithioic acid, 1,4-phenylenebis-, diammonium salt (9CI) (CA INDEX NAME)



● 2 NH<sub>3</sub>

GI





AB Dithiocarbamates were prepared by treating polyamines with CS<sub>2</sub>. Thus, stirring m-phenylenediamine with CS<sub>2</sub> and NH<sub>4</sub>OH in H<sub>2</sub>O gave 70% dithiocarbamate I.

L21 ANSWER 12 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1986:198955 HCAPLUS

DOCUMENT NUMBER: 104:198955

TITLE: The microanalysis of metals by the chelating reagents with two dithiocarboxylic groups. III. The synthesis of ten chelating reagents of bisdithiocarbamates and dioxanthates, and their ultraviolet, visible and infrared absorption spectra, NMR spectra, chelate formation and application to microanalysis of metals

AUTHOR(S): Yamamoto, Daijiro; Aoyama, Mamoru

CORPORATE SOURCE: Fac. Agric., Meiji Univ., Kawasaki, 214, Japan

SOURCE: Meiji Daigaku Nogakubu Kenkyu Hokoku (1985), (68), 69-90

CODEN: MDNHA3; ISSN: 0465-6083

DOCUMENT TYPE: Journal

LANGUAGE: Japanese

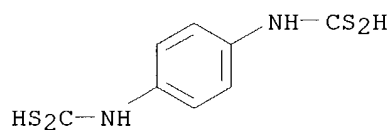
IT 102148-83-4P

RL: PREP (Preparation)

(preparation and spectra and use of, for spectrophotometric determination of trace metals)

RN 102148-83-4 HCAPLUS

CN Carbamodithioic acid, 1,4-phenylenebis-, diammonium salt (9CI) (CA INDEX NAME)



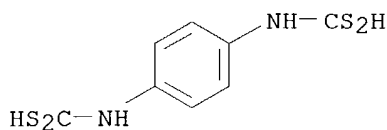
● 2 NH<sub>3</sub>

IT 46350-14-5D, cobalt and copper and nickel complexes

RL: PRP (Properties)  
(spectra of)

RN 46350-14-5 HCAPLUS

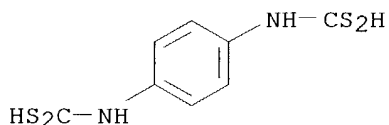
CN Carbamodithioic acid, 1,4-phenylenebis- (9CI) (CA INDEX NAME)



AB The synthesis of ten chelating reagents of bisdithiocarbamates and dioxanthates, and their UV, visible and IR absorption spectra, NMR spectra, chelate formation and application to microanal. of metals are reported.

L21 ANSWER 13 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1983:531439 HCAPLUS  
 DOCUMENT NUMBER: 99:131439  
 TITLE: Non-silver x-ray recording process  
 INVENTOR(S): Robillard, Jean J.  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S., 11 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4394439	A	19830719	US 1981-267685	19810528
PRIORITY APPLN. INFO.:			US 1981-267685	19810528
IT <b>46350-14-5D</b> , copper complexes, polymers				
RL: USES (Uses)				
(x-ray imaging material containing dye former and, thermal development of image in)				
RN	46350-14-5 HCAPLUS			
CN	Carbamodithioic acid, 1,4-phenylenebis- (9CI) (CA INDEX NAME)			



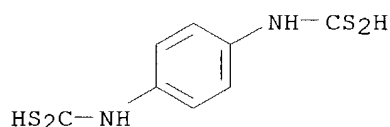
AB Heat developing imaging material for radiog. comprises an x-ray sensitive polymer, a dye former, and a complexing agent. Image formation process involves imagewise x-ray exposure to decompose the polymer to provide free radicals (latent image) and heat development during which the radicals react with the dye former to provide a dye and complexation of the dye takes place to provide a dye complex image. Thus, a 3 mm thick polyhexafluoropropylene sheet was coated with a composition containing 1-methyl-2-phenylindolizine 0.5, 4-aminodiphenylamine 0.4, Et cellulose 5, Pb naphthenate 0.65 g, and CH2Cl2 100 cm3 to a wet thickness of 10  $\mu$ , imagewise exposed to x-ray radiation (150 kV, 6 mA) at 50  $\mu$ m for 5 s, and developed at 110° to give a black image.

L21 ANSWER 14 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1977:134883 HCAPLUS

DOCUMENT NUMBER: 86:134883  
 TITLE: Alkylenebis(dithiolcarbamate) bactericides and fungicides  
 INVENTOR(S): Aoyama, Keiji; Tsugi, Michihisa; Akadaira, Rokuro; Kuriyama, Hiromichi  
 PATENT ASSIGNEE(S): Denki Kagaku Kogyo K. K., Japan  
 SOURCE: Jpn. Tokkyo Koho, 5 pp.  
 CODEN: JAXXAD  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 51042174	B4	19761113	JP 1970-64599	19700723
PRIORITY APPLN. INFO.:			JP 1970-64599	19700723

IT **46350-14-5**  
 RL: BIOL (Biological study)  
 (bactericidal and fungicidal activity of ethylenebis(dithiocarbamate) and)  
 RN 46350-14-5 HCAPLUS  
 CN Carbamodithioic acid, 1,4-phenylenebis- (9CI) (CA INDEX NAME)

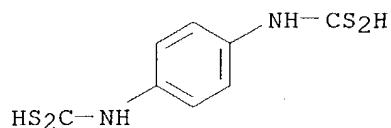


AB Thiuram disulfides are used as bactericides and fungicides. The combination of ethylenebis(dithiocarbamate) [34731-32-3] and either 2-methylethylenebis(dithiocarbamate) [35449-52-6], 2-ethylethylenebis(dithiocarbamate) [35449-55-9], 2-propylethylenebis(dithiocarbamate) [35449-53-7], or p-phenylenebis(dithiocarbamate) [**46350-14-5**] were effective against *Alternaria moli*, *Xanthomonas citri*, *Diaporthe citri*, and *Pseudoperonospora cubensis*. For example, a mixture of ethylenebis(dithiocarbamate) and 2-methylethylenebis(dithiocarbamate) (1:1) sprayed on cucumbers at 1 ppm decreased *P. cubensis* infection by 86%.

L21 ANSWER 15 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1977:90285 HCAPLUS  
 DOCUMENT NUMBER: 86:90285  
 TITLE: Sulfur-containing polymers. XVIII. Preparation and properties of thiuram polysulfide polymers  
 AUTHOR(S): Kobayashi, Norio; Osawa, Akiko; Kimoto, Hisao; Hayashi, Yasuo; Shimizu, Kiwako; Fujisawa, Tamotsu  
 CORPORATE SOURCE: Sagami Chem. Res. Cent., Sagamihara, Japan  
 SOURCE: Journal of Polymer Science, Polymer Chemistry Edition (1977), 15(1), 39-49  
 CODEN: JPLCAT; ISSN: 0449-296X  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 IT **14549-85-0P**

RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 14549-85-0 HCAPLUS  
 CN Carbamodithioic acid, 1,4-phenylenebis-, disodium salt (9CI) (CA INDEX NAME)

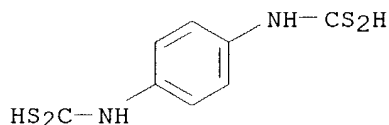


● 2 Na

IT **61988-28-1P**  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of, interfacial)  
 RN 61988-28-1 HCAPLUS  
 CN Carbamodithioic acid, 1,4-phenylenebis-, disodium salt, polymer with sulfur chloride (S2Cl2) (9CI) (CA INDEX NAME)

CM 1

CRN 14549-85-0  
 CMF C8 H8 N2 S4 . 2 Na



● 2 Na

CM 2

CRN 10025-67-9  
 CMF Cl2 S2

Cl-S-S-Cl

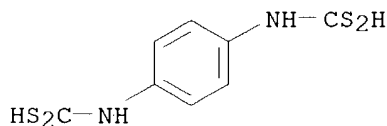
AB Thiuram polysulfide polymers [(NHRNHC(:S)SxC(:X))<sub>n</sub>, R = (CH<sub>2</sub>)<sub>2</sub>, (CH<sub>2</sub>)<sub>4</sub>, (CH<sub>2</sub>)<sub>6</sub>, piperazyl, p-CH<sub>2</sub>C<sub>6</sub>H<sub>4</sub>CH<sub>2</sub>, or p-C<sub>6</sub>H<sub>4</sub>, x = 2-4] were prepared in 70-99% yield from the corresponding alkali metal bisdithiocarbamates either by oxidation with (NH<sub>4</sub>)<sub>2</sub>S<sub>2</sub>O<sub>8</sub> or by interfacial polycondensation with SCl<sub>2</sub> or S<sub>2</sub>Cl<sub>2</sub>. Polymers based on aliphatic primary diamines are more stable than those from aromatic diamines. Thus, the piperazine-based polymer has the

highest heat resistance (decomposition point 171°), whereas polymers derived from p-phenylenediamine are thermally unstable and decompose at 60-70° with the liberation of S. The disodium or dipotassium bisdithiocarbamates were prepared from aliphatic or aromatic diamines, CS<sub>2</sub>, and KOH or NaOH in H<sub>2</sub>O-EtOH or EtOH solns.

L21 ANSWER 16 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1975:497257 HCAPLUS  
 DOCUMENT NUMBER: 83:97257  
 TITLE: Aromatic 2-imino-1,3-dithietanes  
 INVENTOR(S): Reger, David W.; Nigro, Matthew M.; Brand, William W.; Drabb, Thomas W., Jr.  
 PATENT ASSIGNEE(S): American Cyanamid Co., USA  
 SOURCE: S. African, 28 pp.  
 CODEN: SFXXAB  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ZA 7309658	A	19741127	ZA 1973-9658	19731221
BR 7401376	A0	19741126	BR 1974-1376	19740222
PRIORITY APPLN. INFO.: IT 46350-14-5			US 1973-336642	19730228

RL: RCT (Reactant); RACT (Reactant or reagent)  
 (cycloaddn. reaction of, with methylene dibromide, iminodithietanes from)  
 RN 46350-14-5 HCAPLUS  
 CN Carbamodithioic acid, 1,4-phenylenebis- (9CI) (CA INDEX NAME)



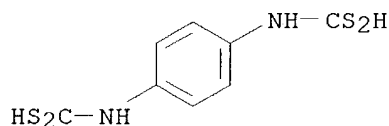
GI For diagram(s), see printed CA Issue.  
 AB Approx. 70 insecticides I (R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub>, R<sub>5</sub> = e.g., H, Cl, Br, OMe, OEt, NCS, Ph, Bu, OC<sub>6</sub>H<sub>4</sub>Cl-4, SMe) were prepared by treatment of C<sub>6</sub>R<sub>1</sub>R<sub>2</sub>R<sub>3</sub>R<sub>4</sub>R<sub>5</sub>NCS<sub>2</sub>-Et<sub>3</sub>NH<sup>+</sup> with CH<sub>2</sub>Br<sub>2</sub> in Me<sub>2</sub>SO containing Et<sub>3</sub>N followed by addition of (NH<sub>4</sub>)<sub>2</sub>S. Thus, 4-MeC<sub>6</sub>H<sub>4</sub>NCS<sub>2</sub>-Et<sub>3</sub>NH<sup>+</sup> reacted with CH<sub>2</sub>Br<sub>2</sub> to give I (R<sub>1</sub> = R<sub>2</sub> = R<sub>4</sub> = R<sub>5</sub> = H, R<sub>3</sub> = Me), which was effective against the eggs of southern armyworm, Mexican bean beetle, southern corn rootworm and two-spotted spidermites at 100 ppm.

L21 ANSWER 17 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1972:8953 HCAPLUS  
 DOCUMENT NUMBER: 76:8953  
 TITLE: Light-sensitive material for diazo copying  
 INVENTOR(S): Inoue, Eiichi; Yamase, Toshihiro  
 PATENT ASSIGNEE(S): Canon K. K.  
 SOURCE: Ger. Offen., 23 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent

LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2117044	A	19711021	DE 1971-2117044	19710407
DE 2117044	B2	19760715		
DE 2117044	C3	19770303		
JP 49018809	B4	19740513	JP 1970-29875	19700408
US 3778274	A	19731211	US 1971-132074	19710407
PRIORITY APPLN. INFO.:			JP 1970-29875	19700408

IT **14549-85-0**  
 RL: USES (Uses)  
 (light-sensitive compns. containing diazonium compds. and, for diazo process)  
 RN 14549-85-0 HCAPLUS  
 CN Carbamodithioic acid, 1,4-phenylenebis-, disodium salt (9CI) (CA INDEX NAME)



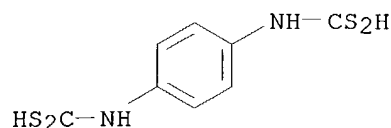
● 2 Na

AB Both the intrinsic and spectral sensitivities of diazo copying materials are improved by adding a dithiocarbamate. Thus, paper was coated with a mixture of 10 g 4-benzoylamino-3,5-diethoxybenzenediazonium chloride, 10 g thiourea, and 60 g hexamethyleneammonium hexamethylenedithiocarbamate (I) and H<sub>2</sub>O to 1 l. On exposure to fluorescent light the sensitivity of a paper containing I was twice that of a control paper not containing I.

L21 ANSWER 18 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1966:494133 HCAPLUS  
 DOCUMENT NUMBER: 65:94133  
 ORIGINAL REFERENCE NO.: 65:17639c-f  
 TITLE: Desulfurized polymeric bithiuram disulfide fungicides  
 INVENTOR(S): Martin, Lothar; Chipman, Harold R.; Gates, Charles W.  
 PATENT ASSIGNEE(S): Dominion Rubber Co., Ltd.  
 SOURCE: 39 pp.  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Unavailable  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CA 735439		19660531	CA	19660506
IT <b>14549-85-0</b> , p-Benzenedicarbamic acid, tetrathio-, disodium salt (desulfurized, fungicidal activity of)				
RN 14549-85-0 HCAPLUS				

CN Carbamodithioic acid, 1,4-phenylenebis-, disodium salt (9CI) (CA INDEX NAME)



●2 Na

AB Fungicides more active than nabam, zineb, or oxidized nabam were prepared by oxidation of nabam or other thiuram disulfides at pH 6-8 followed with NaCN in H<sub>2</sub>O or MeOH. The poly(ethylenebisthiuram sulfide) products are yellow and m. 155-85° (decomposition). No definite structure has been assigned; x-ray diffraction patterns and ir spectra are reproduced. The oxidation process is expressed as  $n[MS(S:)CNHRNHC(:S)SM] + nO + 2nH^+ \rightarrow [-S(S:)CNHRNHC(:S)S-]_n + 2nM^+ + nH_2O$ . Thus, 670 g. of a 19% aqueous di-Na ethylenedithiocarbamate and 670 ml. of an aqueous solution containing 125 g.

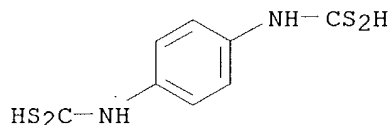
NH4 persulfate were dropped simultaneously into 750 ml. H<sub>2</sub>O at 16-19°. The addition at pH 6-6.6 took 2 hrs. After the slurry reached pH 5, it was agitated for 0.5 hr., and filtered. The filter cake was mixed with 125 ml. H<sub>2</sub>O and 75 ml. Me<sub>2</sub>CO. In 1.5 hrs., 75 ml. of an aqueous solution containing 30 g. NaCN was added at <25° and pH 8. The mixture was agitated for 1 hr., and the precipitate filtered, washed, and dried at 50-5° to give 65 g. yellow product containing S 51.3, N 17.5, C 27.3, and H 3.12%. Similar products were prepd, using di-Na 1,2-propylenebisdithiocarbamate, tri-Na diethylenebisdithiocarbamate, or di-Na p-phenylenebisdithiocarbamate in place of nabam. Simultaneous oxidation and desulfurization is reported. The desulfurized nabam was effective as a 30 ppm. spray on tomatoes infected with Alternaria solani, as a corn seed treatment at 4-16 oz./100 lb. seed against Pythium ultimum, as a 50-ppm. spray on pinto beans sprayed with Uromyces phaseoli, and systemically at 100 ppm. against Verticillium albo-atrum on tomatoes.

L21 ANSWER 19 OF 24 HCAPLUS \ COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1966:494128 HCAPLUS  
DOCUMENT NUMBER: 65:94128  
ORIGINAL REFERENCE NO.: 65:17638b-d  
TITLE: Pesticidal alkaloid salts  
PATENT ASSIGNEE(S): Tokyo Organic Chemical Industries, Ltd.  
SOURCE: 5 pp.  
DOCUMENT TYPE: Patent  
LANGUAGE: Unavailable  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

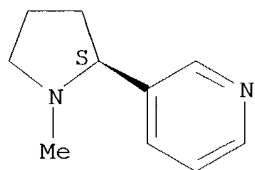
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 1040165		19660824	GB	
PRIORITY APPLN. INFO.:		JP		19630305
IT 13624-76-5,		p-Benzenedicarbamic acid, tetrathio-,		compound with

nicotine (1:1)  
 (as pesticide)  
 RN 13624-76-5 HCAPLUS  
 CN Nicotine, mono(tetrathio-p-benzenedicarbamate) (8CI) (CA INDEX NAME)  
 CM 1  
 CRN 46350-14-5  
 CMF C8 H8 N2 S4



CM 2  
 CRN 54-11-5  
 CMF C10 H14 N2

Absolute stereochemistry. Rotation (-).



AB The dithiocarbamate salts of nicotine, nornicotine, and anabasine have fungicidal, bactericidal, insecticidal, and nematocidal activities. For example, a mixture of 2.2 moles CS<sub>2</sub> and 540 g. of H<sub>2</sub>O are placed in a flask. One mole of 56% (CH<sub>2</sub>NH<sub>2</sub>)<sub>2</sub> is added dropwise, the temperature being maintained at 20-45°. Nicotine extract (2 moles of 95% nicotine) is added, the mixture stirred 1 hr. at 40-5°, and the pH adjusted from 7.8 to 8.8-9.0 with gaseous NH<sub>3</sub>. The resulting liquid contains 45% nicotine ethylenebisdithiocarbamate (I). The solution of I diluted 10,000-fold eradicated *Ophiobolus miyabeanus*, *Alternaria kikuchiana*, *Xanthomonas oryzae*, *X. citri*, and *Coli communis* (*Escherichia coli*). Aphids, lace bugs, thrips, radish webworms, rice stem borers, rice leaf miners, peach leaf miners, cabbage sawfly, red spider mites, and pear suckers were completely killed by a solution of I diluted 2000-fold.

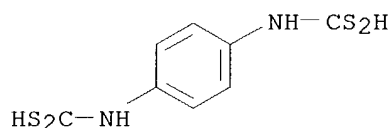
L21 ANSWER 20 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1966:52201 HCAPLUS  
 DOCUMENT NUMBER: 64:52201  
 ORIGINAL REFERENCE NO.: 64:9766f-h  
 TITLE: Organoantimony compounds  
 PATENT ASSIGNEE(S): M&T Chemicals Inc.  
 SOURCE: 10 pp.  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Unavailable



FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
NL 6505219		19651025	NL	
PRIORITY APPLN. INFO.:			US	19640424
IT	46350-14-5, p-Benzenedicarbamic acid, tetrathio- (bis(diphenylantimony) derivative)			
RN	46350-14-5 HCAPLUS			
CN	Carbamodithioic acid, 1,4-phenylenebis- (9CI) (CA INDEX NAME)			



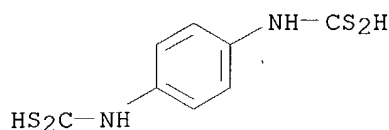
AB Organoantimony chlorides were treated with the Na salts of carboxylic acids to give the organoantimony carboxylates which show antibacterial and fungicidal activity. For example, a solution of 135 g. PhSbCl<sub>2</sub> in 500 ml. EtOH was added over 100 min. to a refluxing solution of AcONa trihydrate in 2500 ml. 95% EtOH, the whole was refluxed 1.5 hrs. the precipitate filtered off,

and the filtrate evaporated to give 125 g. of a precipitate which was extracted with one 1. C<sub>6</sub>H<sub>6</sub>; evaporation gave 62 g. diphenylantimony acetate, m. 128-31°. Similarly, Na p-chlorobenzoate (I) and PhSbCl<sub>2</sub> gave the corresponding benzoate; octylantimony dichloride and I gave dioctylantimony p-chlorobenzoate. Cf. preceding abstrs.

L21 ANSWER 21 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN

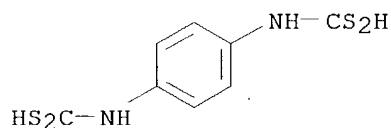
ACCESSION NUMBER: 1966:52200 HCAPLUS  
 DOCUMENT NUMBER: 64:52200  
 ORIGINAL REFERENCE NO.: 64:9766e-f  
 TITLE: Organoantimony compounds  
 PATENT ASSIGNEE(S): M & T Chemicals Inc.  
 SOURCE: 15 pp.  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Unavailable  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
NL 6505218		19651025	NL	
PRIORITY APPLN. INFO.:			US	19640424
IT	46350-14-5, p-Benzenedicarbamic acid, tetrathio- (bis(diphenylantimony) derivative)			
RN	46350-14-5 HCAPLUS			
CN	Carbamodithioic acid, 1,4-phenylenebis- (9CI) (CA INDEX NAME)			



AB Dimethylammonium dimethyldithiocarbamate (16.6 g.) in 450 ml. tetrahydrofuran (THF) was added dropwise over 30 min. to a refluxing solution of 31.1 g. diphenylantimony chloride (I) in 200 ml. THF, the whole was then refluxed 3.5 hrs. and filtered hot to remove the dimethylamine-HCl. The filtrate was concentrated to 100 ml. and 400 ml. (iso-Pr)<sub>2</sub>O added to give a precipitate of diphenylantimony dimethyldithiocarbamate, m. 116-16.5°. Similarly, ammonium propyldithiocarbamate and phenylantimony dichloride gave phenylantimonybis(propyldithiocarbamate), diethylammonium diethyldithiocarbamate and dibutylantimony chloride gave dibutylantimony diethyldithiocarbamate; I and disodium ethylenebis(dithiocarbamate) gave bis(diphenylantimony) ethylenebis(dithiocarbamate). The products show anti-bacterial activity. Cf. preceding and following abstrs.

L21 ANSWER 22 OF 24 HCAPLUS | COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1963:403916 HCAPLUS  
 DOCUMENT NUMBER: 59:3916  
 ORIGINAL REFERENCE NO.: 59:771g-h  
 TITLE: Chelate polymers. V. Chelate polymers of bis(dithiocarbamic acids, and metals  
 AUTHOR(S): Terent'ev, A. P.; Rukhadze, E. G.; Rode, V. V.  
 SOURCE: Vysokomolekulyarnye Soedineniya (1962), 4, 821-7  
 CODEN: VMSDA8; ISSN: 0042-9368  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Unavailable  
 IT 46350-14-5, p-Benzenedicarbamic acid, tetrathio-  
 (metal complexes, chelate polymers)  
 RN 46350-14-5 HCAPLUS  
 CN Carbamodithioic acid, 1,4-phenylenebis- (9CI) (CA INDEX NAME)



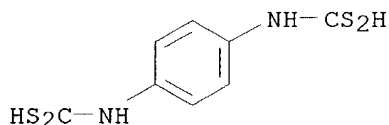
AB Chelate polymers were synthesized by the reaction of bivalent acetates of Ni, Zn, Co, and Cu with the di-Na salts of ethylene-, hexamethylene-, p-phenylene-, and p,p'-biphenylenebis(dithiocarbamic acids) (I). The di-Na salts of I were prepared from equimolar amts. of the corresponding diamines, CS<sub>2</sub>, and NaOH at 0° in a H<sub>2</sub>O-dioxane solution. During preparation of the Cu chelate polymer, Cu<sup>++</sup> is reduced to Cu<sup>+</sup> and S and COS are formed. CuOAc continues to react with more Na salt of I to form the chelate polymer. This mechanism is confirmed by determination of the COS formed.  
 The Cu chelate polymer is a cross-linked structure. It and the Ni, Zn, and Co polymers are fine, colored powders. Their properties (mol. weight and coefficient of polymerization) are not changed essentially by varying the hydrocarbon group in I. When the hydrocarbon group in I is ethylene or

hexamethylene, chelate polymers of Ni, Zn, and Co contain a very small amount of cyclic structure. The radiotracer method with Br82 is used for determination of mol. weight, polymer structure, and degree of polymerization.

This

method confirms the conclusion about formation of a cyclic structure.

L21 ANSWER 23 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1962:469901 HCAPLUS  
 DOCUMENT NUMBER: 57:69901  
 ORIGINAL REFERENCE NO.: 57:13959f-i  
 TITLE: Catalytic properties of chelate polymers  
 AUTHOR(S): Boreskov, G. K.; Keier, N. P.; Rubtsova, L. F.;  
 Rukhadze, E. G.  
 CORPORATE SOURCE: Inst. Catalysis, Acad. Sci. U.S.S.R., Novosibirsk  
 SOURCE: Doklady Akademii Nauk SSSR (1962), 144, 1069-72  
 CODEN: DANKAS; ISSN: 0002-3264  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Unavailable  
 IT 46350-14-5, p-Benzenedicarbamic acid, tetrathio-  
 (metal complexes, catalytic properties of polymeric)  
 RN 46350-14-5 HCAPLUS  
 CN Carbamodithioic acid, 1,4-phenylenebis- (9CI) (CA INDEX NAME)



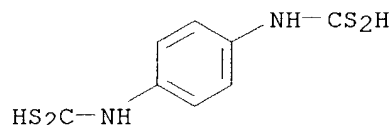
AB The influence of the nature of chelating metal, chemical composition of ligands, and organic units and side groups of the chain of chelate polymers on catalytic activity were measured. Polychelates of Cu, Ni, Fe, Pd, Co, Zn, and Cd with tetrafunctional compds. were studied. The catalytic activity was determined by the rate and selectivity of decomposition of N2H4 (either to N and H or to NH3 and N), iso-PROH, and HCOOH. The catalytic activity decreases in the series Cu, Ni, Pd, Co, Fe; Zn and Cd chelates are inactive. The catalytic activity depends also on the structure of the chelate nodes; for Cu chelates, it decreases in the series (N,S), (S,S), (N,O), (O,O). The structure of the organic component of metal chelates influences the catalytic selectivity. The resp. monomeric chelates were mostly inactive. The catalytic activity of chelate polymers is higher by an order of 2 than that of inorg. Cu semiconductors. It depends on the electronic state of the metal in the chelate node and cannot be related to the electrocond. of the polymer.

L21 ANSWER 24 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1959:11664 HCAPLUS  
 DOCUMENT NUMBER: 53:11664  
 ORIGINAL REFERENCE NO.: 53:2157e-h  
 TITLE: Aromatic isothiocyanates  
 PATENT ASSIGNEE(S): Nederlandse Centrale Organisatie voor  
 Toegepast-Natuurwetenschappelijk Onderzoek  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	GB 793802		19580423	GB	
IT	46350-14-5,				
	p-Benzenedicarbamic acid, tetrathio-				
	(derivs.)				
RN	46350-14-5	HCAPLUS			
CN	Carbamodithioic acid, 1,4-phenylenebis- (9CI) (CA INDEX NAME)				



AB Isothiocyanates (I) are prepared by the reaction of an  $\text{NH}_4$  N-aryldithiocarbamate with an  $\alpha$ -halogenated carboxylic acid salt, which yields a compound of the general formula  $\text{RNHC(S)SR'CO}_2\text{M}$ , where R is aromatic, R' is alkylene or aralkylene, and M is a metal ion. This is then converted into an aromatic I by treating with a salt of a metal that has a reduction potential higher than Al. Thus 112 g.  $\text{PhNH}_2$  added dropwise to a mixture of 180 cc.  $\text{NH}_4\text{OH}$  and 108 g.  $\text{CS}_2$  while cooling in ice gave 185 g.  $\text{PhNHC(S)SNH}_4$ ; this was suspended in 1 l.  $\text{H}_2\text{O}$  and a solution of 100 g.  $\text{ClCH}_2\text{CO}_2\text{H}$  neutralized with  $\text{NaOH}$  added at  $30^\circ$  and pH 7, the mixture allowed to stand 1 hr., and 75 g.  $\text{ZnCl}_2$  added with sufficient  $\text{NaOH}$  to maintain pH 7. The oily layer is separated with  $\text{Et}_2\text{O}$ , dried, and distilled

to

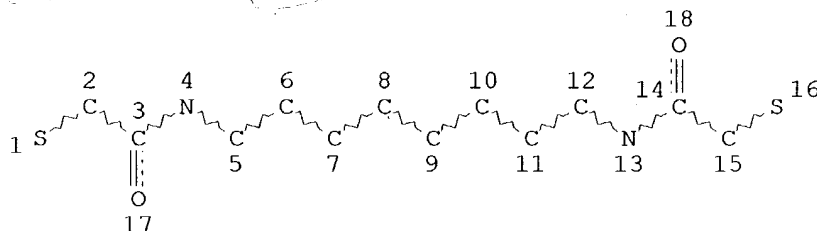
yield 105 g.  $\text{PhNCS}$ , b<sub>12</sub>  $100-1^\circ$ . A precipitate of  $\text{Zn(SCH}_2\text{CO}_2\text{Na)}_2$  is recovered from the aqueous solution. Similarly, 1.08 kg. p-( $\text{H}_2\text{N})_2\text{C}_6\text{H}_4$ , 3.7 l.  $\text{NH}_4\text{OH}$ , 1.71 kg.  $\text{CS}_2$ , and 1.3 l.  $\text{H}_2\text{O}$  1-3 hrs. at  $25-30^\circ$  yield 92%  $\text{NH}_4$  p-phenylene bis(dithiocarbamate), which is suspended in 3.5 l.  $\text{H}_2\text{O}$  and treated with 1.9 kg.  $\text{ClCH}_2\text{CO}_2\text{Na}$  as before. Adding 2.72 kg.  $\text{ZnCl}_2$  in 17.1 l.  $\text{H}_2\text{O}$  precipitates 3.78 kg. Zn p-phenylene bis(S-carboxymethyl dithiocarbamate), useful as a fungicide. By treating this product with  $\text{NaOH}$  to pH 7, 1.36 kg. p-phenylene diisothiocyanate is formed, m.  $130-1^\circ$ . Similarly are prepared the following isothiocyanates (% yield, m.p., and the respective amine given): p-acetylamino phenyl, 73,  $192-3^\circ$ , N-monoacetyl-p-phenylenediamine; p-ethoxyphenyl, 64,  $60-1^\circ$ , p-phenetidine; p-chlorophenyl, 68,  $47^\circ$ , p- $\text{ClC}_6\text{H}_4\text{NH}_2$ ; p-bromophenyl, 55,  $58-9^\circ$  p- $\text{BrC}_6\text{H}_4\text{NH}_2$ ; and  $\alpha$ -naphthyl, 54,  $56-7^\circ$ ,  $\alpha$ - $\text{C}_{10}\text{H}_7\text{NH}_2$ .

=&gt; d que stat 16

L3

STR

as on p. 4



NODE ATTRIBUTES:  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 18

STEREO ATTRIBUTES: NONE

L6 0 SEA FILE=BEILSTEIN SSS FUL L3

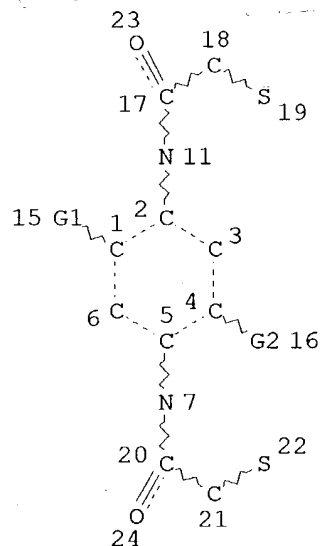
*Search in Beilstein*

100.0% PROCESSED 437 ITERATIONS  
 SEARCH TIME: 00.00.08

0 ANSWERS

=> d que stat l16

L15 STR



$G_1 = R_1$   
 $G_2 = R_2$

VAR G1=AK/CL

VAR G2=AK/CL

NODE ATTRIBUTES:  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 18

STEREO ATTRIBUTES: NONE

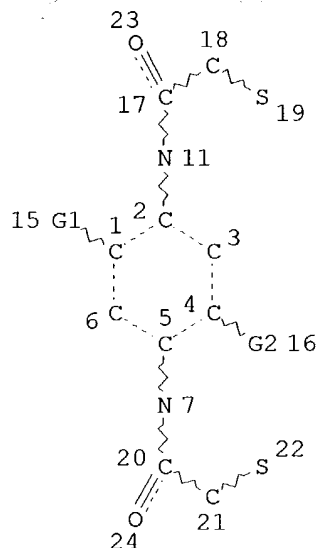
L16 0 SEA FILE=BEILSTEIN SSS FUL L15

*Search in Beilstein*

100.0% PROCESSED 25 ITERATIONS  
 SEARCH TIME: 00.00.06

0 ANSWERS

=> d que stat 117  
L15 STR



*as above*

VAR G1=AK/CL  
VAR G2=AK/CL  
NODE ATTRIBUTES:  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 18

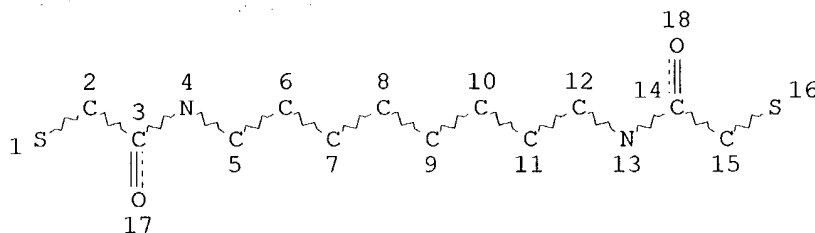
STEREO ATTRIBUTES: NONE

L17 28 SEA FILE=MARPAT SSS FUL L15

*search in Marpat*

100.0% PROCESSED 46958 ITERATIONS ( 3 INCOMPLETE ) 28 ANSWERS  
SEARCH TIME: 00.01.36

=> d que stat 17  
L3 STR



*"1,8-dimercaptoacetamido-octane"*

NODE ATTRIBUTES:  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 18

STEREO ATTRIBUTES: NONE

L7 5 SEA FILE=MARPAT SSS FUL L3

*search in Marpat*

100.0% PROCESSED 18353 ITERATIONS ( 2 INCOMPLETE) 5 ANSWERS  
SEARCH TIME: 00.00.34

=> dup rem 121 123

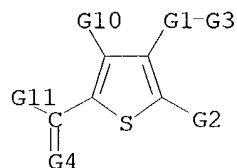
FILE 'HCAPLUS' ENTERED AT 11:25:11 ON 11 FEB 2004  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'MARPAT' ENTERED AT 11:25:11 ON 11 FEB 2004  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2004 American Chemical Society (ACS)  
PROCESSING COMPLETED FOR L21  
PROCESSING COMPLETED FOR L23  
L31 55 DUP REM L21 L23 (0 DUPLICATES REMOVED)  
ANSWERS '1-24' FROM FILE HCAPLUS  
ANSWERS '25-55' FROM FILE MARPAT

=> d 123 hit ibib abs 1-  
YOU HAVE REQUESTED DATA FROM 31 ANSWERS - CONTINUE? Y/(N):y

L23 ANSWER 1 OF 31 MARPAT COPYRIGHT 2004 ACS on STN

**MSTR 1**

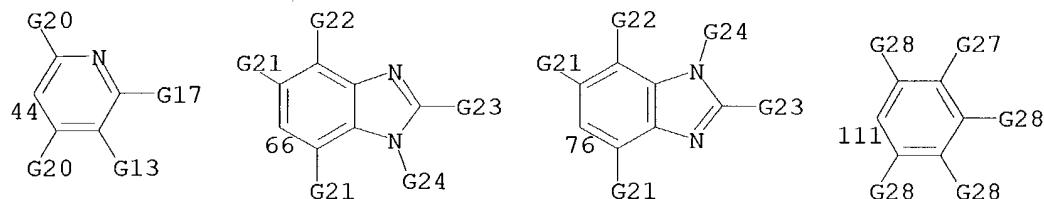


G1 = S(O) / SO2  
G2 = alkyl<(1-4)> / F / Cl / Br / I / NH2 /  
alkylthio<(1-6)> / alkenylthio<(2-6)> / alkoxy<(1-6)> / CF3 /  
SO2Me / SCH2Ph / (SC 148)

S—G31  
148

G3 = Ph (SO (1-) G12) / naphthyl (SO (1-) G12) /  
pyridyl / imidazolyl / thiazolyl / furyl / thienyl /  
benzothiazolyl / pyrazolyl / pyrimidinyl / benzimidazolyl /  
benzofuranyl / indolyl / benzothienyl /  
Hy<EC (14) A (1) Q (1) O (0) OTHERQ, AR (1-),

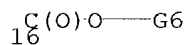
BD (10) N (1) D, RC (3), RS (3) E6> (SO (1-2) G34) /  
 heteroaryl<EC (-9) A (1-2) Q (0-2) N (0-1) O (0-1) S (0)  
 OTHERQ, RC (1-2)> (SO) / (SC 44 / 66 / 76 / 111)



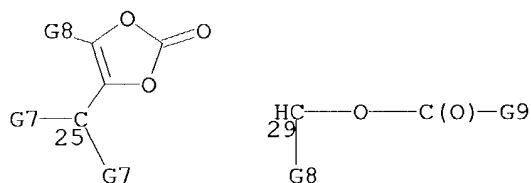
G4 = NH / 14



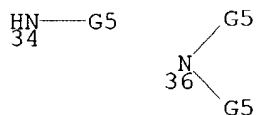
G5 = alkyl<(1-4)> / aryl<EC (6-10) C, RC (1-2)> /  
 alkyl<(1-4)> (SR OH) / alkyl<(1-4)> (SR NH2) /  
 alkyl<(2-6)> (SR alkylamino<(1-4)>) /  
 alkyl<(2-6)> (SR dialkylamino<(1-4)>) /  
 alkyl<(1-4)> (SR CO2H) / CN / NO2 / NH2 / alkoxy<(1-4)> /  
 OH / CO2H / 16 / (SC Me / Et / Pr-n / Bu-n / OMe / OEt)



G6 = OH / alkoxy<(1-4)> / CN / alkoxycarbonyl<(1-4)> /  
 alkyl<(1-4)> / cycloalkyl<(3-8)> / Ph / CH2Ph / 25 / 29 /  
 (SC Me / Et / Pr-n)



G7 = H / Ak<EC (1-6) C, BD (0-) D (0) T> / Ph  
 G8 = H / alkyl<(1-6)> / alkenyl<(2-6)> / Ph  
 G9 = alkyl<(1-4)> (SR (1-) aryl<EC (6-10) C, RC (1-2)>) /  
 alkyl<(1-6)>  
 G10 = H / F / Cl / NH2  
 G11 = NH2 / 34 / 36



G12 = R / (SC alkyl<(1-6)> / alkoxy<(1-6)> /  
 alkenyl<(2-6)> / F / Cl / Br / I / OH / Ph / OPh / NH2 /



NHPh)  
 G13 = F / Cl / Br / I / Ph (SO (1-2) G14)  
 G14 = alkyl<(1-6)> / 46

G15—O—G16  
 46

G15 = alkylene<(1-4)> (SO CO2H)  
 G16 = alkyl<(1-4)> (SO CO2H)  
 G17 = H / NH2 / F / Cl / Br / I / OPh /  
 alkylamino<(1-6)> / 50

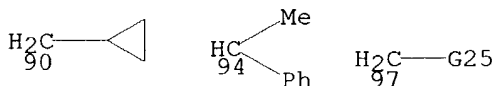
HN—G18—G19  
 50

G18 = alkylene<(1-6)>  
 G19 = Ph (SO SO2NH2) / pyridyl (SO alkyl<(1-4)>  
 (SR (1-) G33)) / 2-tetrahydrofuryl / 53 / imidazolyl /  
 morpholinyl / OH / thienyl (SR alkyl<(1-4)>) /  
 pyrimidinyl (SR NH2)



53

G20 = H / F / Cl / Br / I / alkyl<(1-4)>  
 G21 = H / F / Cl / Br / I / alkyl<(1-4)> / (SC Me / Et)  
 G22 = H / F / Cl / Br / I / tolyl  
 G23 = H / alkyl<(1-4)> / (SC Me / Et)  
 G24 = H / alkyl<(1-6)> / alkenyl<(2-6)> / 90 / Ph / 94 /  
 97

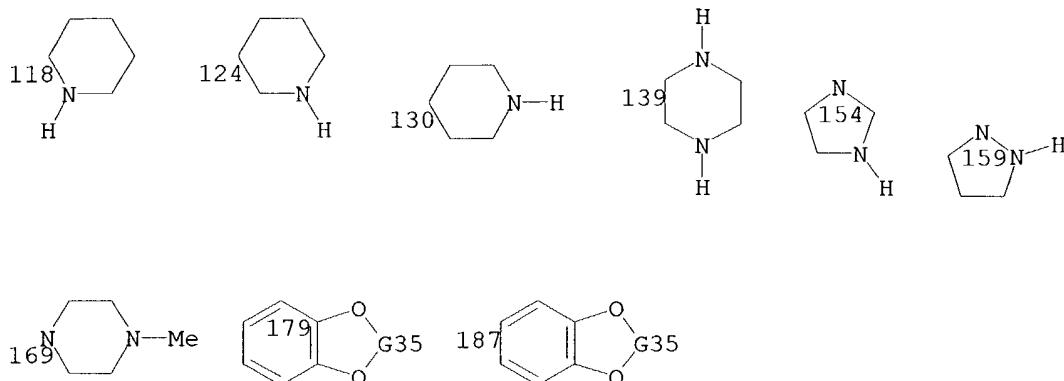


G25 = pyridyl / isoxazolyl (SO (1-2) Me) /  
 Ph (SO (1-2) G26)  
 G26 = F / Cl / Br / I / NO2 / NH2 / 99

HN—C(O)—CH2—S—CH2—CH2—CO2H  
 99

G27 = Ph (SO (1-5) G29) / 179 / 187 / naphthyl / thienyl /  
 furyl / imidazolyl / oxazolyl / isoxazolyl / pyridyl /  
 pyrimidinyl / benzothienyl / benzofuranyl / benzimidazolyl /  
 quinolinyl / isoquinolinyl / pyrazinyl / piperidino /  
 piperazino / 118 / 124 / 130 / 139 /  
 Cb<EC (10) C, AR (1-), BD (ALL) N, RC (2), RS (2) E6> (SO) /  
 heteroaryl<EC (-10) A (1-2) Q (1-2) N (0-1) O (0-1) S (0)  
 OTHERQ, RC (1-2)> (SO) / Hy<EC (6) A (1-2) Q (1-2) N (0)  
 OTHERQ, AR (0), BD (ALL) N, RC (1), RS (1) E6> (SO) /

(SC dialkylamino<(1-6)> / pyrrolidino / morpholino / 154 / 159 / 169)



G28 = H / alkyl<(1-4)> / OH / alkoxy<(1-4)> / alkenyloxy<(2-4)> / OPh / OCH<sub>2</sub>Ph / F / Cl / Br / I / NH<sub>2</sub> / NO<sub>2</sub> / (SC Me / 150)

<sup>150</sup>O—G32

G29 = R / (SC alkyl<(1-4)> (SO (1-) G33) / alkoxy<(1-4)> (SO (1-) G33) / 146 / alkenyl<(2-4)> / alkylcarbonyl<(1-4)> / CN / NH<sub>2</sub> / alkylamino<(1-4)> / dialkylamino<(1-4)> / CHO / alkoxycarbonyl<(1-4)> (SO (1-) G33) / Ph / OPh / Ph (SR OPh) / biphenyl / F / Cl / Br / I / CO<sub>2</sub>H / NO<sub>2</sub> / alkylsulfonyl<(1-4)> / alkylsulfinyl<(1-4)> / alkylthio<(1-4)> / OH / CONH<sub>2</sub> / alkylaminocarbonyl<(1-4)> / dialkylaminocarbonyl<(1-4)>)

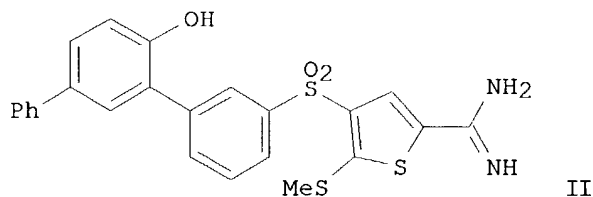
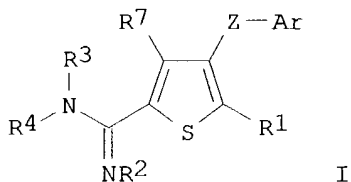
<sup>146</sup>G30—OH

G30 = alkylene<(1-4)> (SO (1-) G33)  
 G31 = Me / Et / CH<sub>2</sub>CH=CH<sub>2</sub>  
 G32 = Me / Et / CH=CH<sub>2</sub>  
 G33 = F / Cl / Br / I  
 G34 = R / (SC alkyl<(1-6)> / alkoxy<(1-6)> / alkenyl<(2-6)> / F / Cl / Br / I / OH / Ph / OPh / NH<sub>2</sub>)  
 G35 = (1-2) CH<sub>2</sub>  
 MPL: claim 1  
 NTE: or solvates, hydrates or pharmaceutically acceptable salts

ACCESSION NUMBER: 140:16639 MARPAT  
 TITLE: Preparation of novel thiophene amidines for treating complement-mediated diseases and conditions  
 INVENTOR(S): Subasinghe, Nalin; Khalil, Ehab; Leonard, Kristi; Ali, Farah; Hufnagel, Heather Rae; Travins, Jeremy M.; Ballentine, Shelley K.; Wilson, Kenneth T.; Cummings, Maxwell D.; Pan, Wenxi; Gushue, Joan; Meegalla, Sanath; Wall, Mark; Chen, Jinsheng; Rudolph, M.

PATENT ASSIGNEE(S): Jonathan; Huang, Hui  
 SOURCE: 3-Dimensional Pharmaceuticals, Inc., USA  
 PCT Int. Appl., 463 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003099805	A1	20031204	WO 2003-US16888	20030528
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2004009995	A1	20040115	US 2003-445817	20030528
PRIORITY APPLN. INFO.:			US 2002-383130P	20020528
GI				

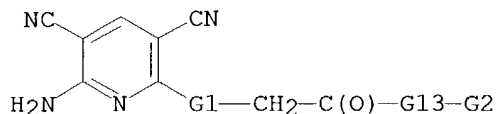


AB The title compds. [I; Z = SO, SO<sub>2</sub>; R<sub>1</sub> = alkyl, halo, NH<sub>2</sub>, alkylthio, etc.; Ar = Ph, naphthyl, pyridyl, imidazolyl, etc.; R<sub>2</sub>-R<sub>4</sub> = H, alkyl, aryl, etc.; R<sub>7</sub> = H, Cl, F, NH<sub>2</sub>], useful for treating the symptoms of an acute or chronic disorder mediated by the classical pathway of the complement cascade, were prepared and formulated. E.g., a 4-step synthesis of II (starting from 4-hydroxybiphenyl) which showed K<sub>i</sub> in the range 0.006 to 0.023 μM, was given.

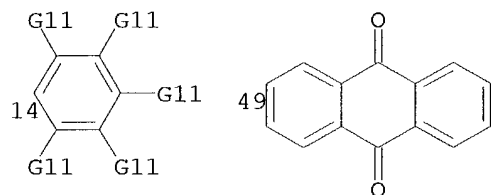
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 2 OF 31 MARPAT COPYRIGHT 2004 ACS on STN

## MSTR 1



G1 = **S** / S(O) / SO<sub>2</sub>  
 G2 = **14** / (SC 2-naphthyl / 49)



G3 = OH / **25** / aryl (SO) / heteroaryl<EC (0-) N (0-)  
 O (0-) S> (SO)

<sup>C</sup>(O)—G4  
 25

G4 = OH / NH<sub>2</sub> / 27 / Hy<EC (3-7) A (1) Q (1) N (0)  
 OTHERQ, AN (1) N, BD (ALL) SE, RC (1), RS (1) M3 (1) X7>

G5—G6  
 27

G5 = O / NH / 29

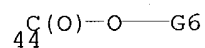
N—G6  
 29

G6 = alkyl<(1-8)> / alkenyl<(2-8)> /  
 alkyl<(1-4)> (SR (1-) G7) / aryl (SO) /  
 heteroaryl<EC (0-) N (0-) O (0-) S> (SO)  
 G7 = aryl (SO) / heteroaryl<EC (0-) N (0-) O (0-) S>  
 (SO) / CO<sub>2</sub>H / 41

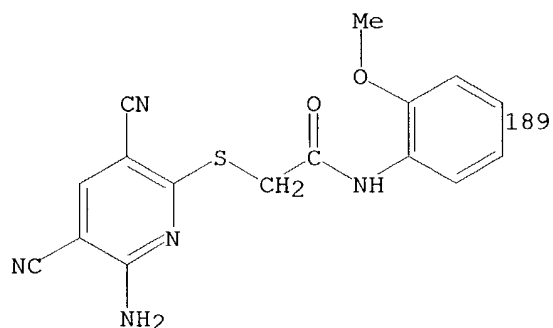
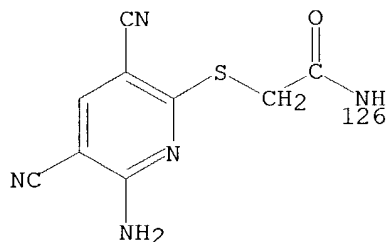
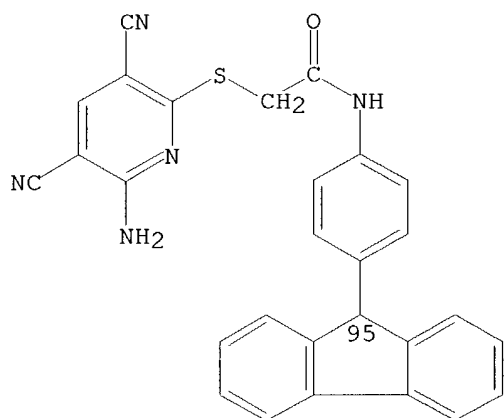
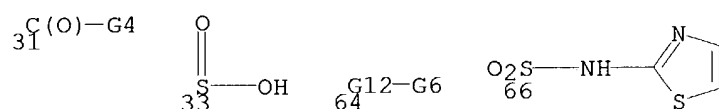
<sup>C</sup>(O)—O—G8  
 41

G8 = alkyl<(1-8)> / alkenyl<(2-8)> /  
 alkyl<(1-4)> (SR (1-) G9) / aryl (SO) /  
 heteroaryl<EC (0-) N (0-) O (0-) S> (SO)  
 G9 = aryl (SO) / heteroaryl<EC (0-) N (0-) O (0-) S>

(SO) / CO<sub>2</sub>H (SO)  
 G10 = alkyl<(1-4)> / OH / OMe / 44 / CO<sub>2</sub>H / F / Cl / Br /  
 I / CF<sub>3</sub>



G11 = H / alkyl<(1-8)> (SO (1-) G3) / alkenyl<(2-8)> /  
 31 / CN / CF<sub>3</sub> / SH / 33 / 64 / aryl (SO (1-) G10) /  
 heteroaryl<EC (0-) N (0-) O (0-) S> (SO (1-) G10) / F / Cl /  
 Br / I / OH / alkoxy<(1-8)> / NH<sub>2</sub> / NO<sub>2</sub> /  
 Hy<EC (3-7) A (1) Q (1) N (0) OTHERQ, AN (1) N, BD (ALL) SE,  
 RC (1), RS (1) M3 (1) X7> / (SC SMe / NHCOMe / OMe / Me /  
 66 / SO<sub>2</sub>NH<sub>2</sub> / OEt / OBU-n / 126 / 95 / 189)



G12 = NH / 40 / S / SO<sub>2</sub>

40  $\text{N} \text{---} \text{G6}$

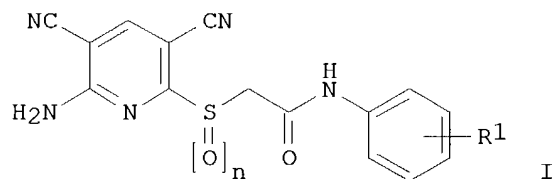
G13 = NH / (SC 73)

73  $\text{N} \text{---} \text{Ph}$

MPL: claim 1

ACCESSION NUMBER: 139:381381 MARPAT  
 TITLE: Preparation of antibacterial pyridinedicarbonitriles  
 INVENTOR(S): Grant, Richard; Latham, Christopher J.; Thomson, Samantha; Zhao, Lihua  
 PATENT ASSIGNEE(S): Pantherix Ltd., UK  
 SOURCE: Brit. UK Pat. Appl., 18 pp.  
 CODEN: BAXXDU  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2388593	A1	20031119	GB 2002-10898	20020513
PRIORITY APPLN. INFO.:			GB 2002-10898	20020513
GI				

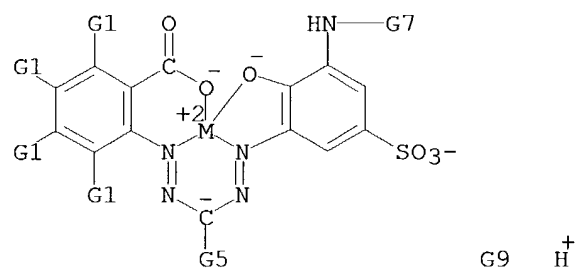


AB The title compds. [I; n = 0-2; R1 = H, alkyl, CN, aryl, etc.] which have antibacterial activity, especially against gram pos. bacteria, were prepared Thus, reacting 2-amino-3,5-dicyano-6-mercaptopyridine with 2-chloro-N-(2,5-dimethylphenyl)acetamide in the presence of K2CO3 in DMF afforded 19% I [n = 0; R1 = 2,5-Me2C6H3] which showed IC50 in the range of 1-50  $\mu\text{M}$  against isolated Streptococcus pneumoniae chorismate synthase. Pharmaceutical composition comprising the compound I is claimed.

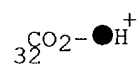
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 3 OF 31 MARPAT } COPYRIGHT 2004 ACS on STN

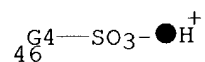
MSTR 6



G1 = (-1) 32 / (-1) G22 / H



G2 = Cl / Br / 46

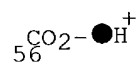


G3 = H / Cl / Br

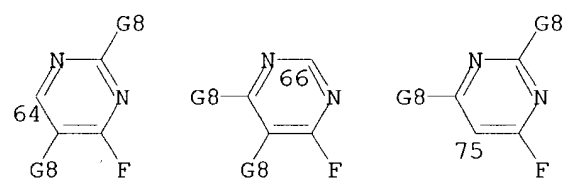
G4 = O / s

G5 = Ph (SO (1-2) G6)

G6 = (-1) 56 / (-1) G22



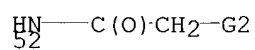
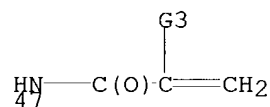
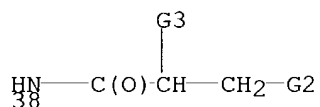
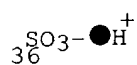
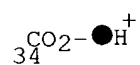
G7 = 64 / 66 / 75



G8 = H / F

G9 = Cu

G22 = 34 / 36 / NHCOMe / 38 / 47 / 52



MPL: claim 3  
NTE: substitution is restricted

ACCESSION NUMBER: 138:339644 MARPAT  
TITLE: Trichromatic dyeing process and reactive dye mixtures used therein  
INVENTOR(S): Gisler, Markus; Wald, Roland  
PATENT ASSIGNEE(S): Clariant International Ltd., Switz.  
SOURCE: PCT Int. Appl., 36 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003033600	A1	20030424	WO 2002-IB4216	20021014
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

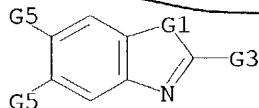
PRIORITY APPLN. INFO.: GB 2001-24842 20011017

AB The invention relates to a process for the trichromatic dyeing or printing of hydroxy-group-containing or nitrogen-containing organic substrates with dye mixts. and also to the mixts. of red, orange or yellow, and blue reactive dyes and to hydroxy-group-containing or nitrogen-containing organic substrates dyed or printed therewith. Dyeing and prints with high wet fastness are obtained. An example for cotton dyeing was given which used red and yellow azo dyes containing vinyl sulfone and chlorotriazine groups and a blue formazan Cu complex dye with a difluoropyrimidyl group.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

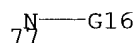
L23 ANSWER 4 OF 31 MARPAT COPYRIGHT 2004 ACS on STN  
(ALL HITS ARE ITERATION INCOMPLETES)

**MSTR 3 ITERATION INCOMPLETE**

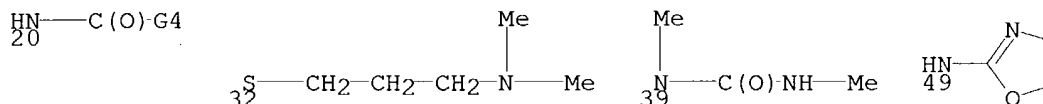


G1 = O / S / 77

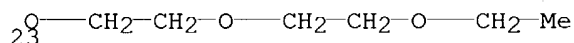




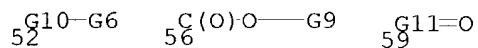
G3 = 20 / NH2 / NHC(NH)NH2 / 32 / 39 / 49



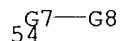
G4 = NHMe / NPh / Me / OH / OEt / OMe / NH2 / 23



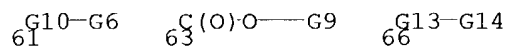
G5 = H / X / NO2 / OH / SH / 52 / 56 /  
 Ak<EC (1-10) C, BD (0-) D (0) T> (SO (1-) G12) /  
 Cb<EC (3-10) C, BD (0-) D (0) T> (SO (1-) G12) / 59



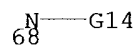
G6 = aryl / heteroaryl<EC (0-) O (0-) S (0-) N> /  
 Hy<EC (0-) O (0-) S (0-) N, AR (0)> / 54



G7 = alkylene<(1-10)> / cycloalkylene<(3-10)>  
 G8 = H / aryl / heteroaryl<EC (0-) O (0-) S (0-) N> /  
 Hy<EC (0-) O (0-) S (0-) N, AR (0)>  
 G9 = alkyl<(1-10)> / cycloalkyl<(3-10)>  
 G10 = O / S / S(O) / SO2  
 G11 = Ak<EC (1-10) C, BD (0-) D (0) T> (SO) /  
 Cb<EC (3-10) C, BD (0-) D (0) T> (SO)  
 G12 = aryl / heteroaryl<EC (0-) O (0-) S (0-) N> /  
 Hy<EC (0-) O (0-) S (0-) N, AR (0)> / 61 / 63 / NH2 / OH /  
 66 / CN / X / NO2



G13 = O / NH / 68



G14 = Ak<EC (1-10) C, BD (0-) D (0) T> (SO (1-) G15) /  
 Cb<EC (3-10) C, BD (0-) D (0) T> (SO (1-) G15) / 70

$\text{G11}=\text{O}$   
70

G15 = aryl / heteroaryl<EC (0-) O (0-) S (0-) N> /  
Hy<EC (0-) O (0-) S (0-) N, AR (0)> / 72 / 74 / CN / X /  
NO2 / OH / SH

$\text{G10}-\text{G6}$   $\text{C}(\text{O})\text{O}-\text{G9}$   
72 74

G16 = H / Ak<EC (1-10) C, BD (0-) D (0) T> (SO (1-) G12) /  
Cb<EC (3-10) C, BD (0-) D (0) T> (SO (1-) G12) / 79

$\text{G11}=\text{O}$   
79

MPL: claim 11

ACCESSION NUMBER: 137:119655 MARPAT  
TITLE: Combinations of drugs (e.g., a benzimidazole and pentamidine) for the treatment of neoplastic disorders  
INVENTOR(S): Borisy, Alexis; Keith, Curtis; Foley, Michael A.; Stockwell, Brent R.  
PATENT ASSIGNEE(S): Combinatorx, Incorporated, USA  
SOURCE: PCT Int. Appl., 57 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

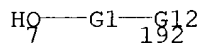
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002058697	A1	20020801	WO 2002-US1707	20020122
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2002165261	A1	20021107	US 2001-768870	20010124
EP 1363625	A1	20031126	EP 2002-709117	20020122
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
PRIORITY APPLN. INFO.:			US 2001-768870	20010124
			WO 2002-US1707	20020122

AB The invention features a method for treating a patient having a cancer or other neoplasm, by administering to the patient (i) a benzimidazole or a metabolite or analog thereof; and (ii) pentamidine or a metabolite or analog thereof simultaneously or within 14 days of each other in amts. sufficient to inhibit the growth of the neoplasm.

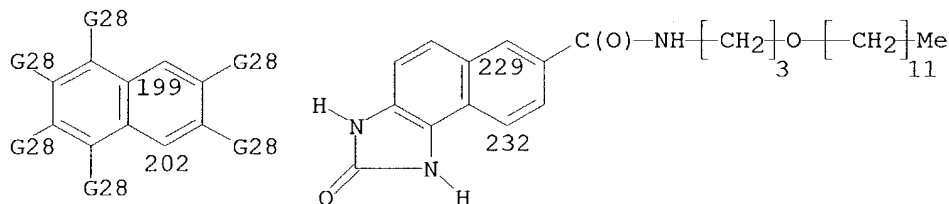
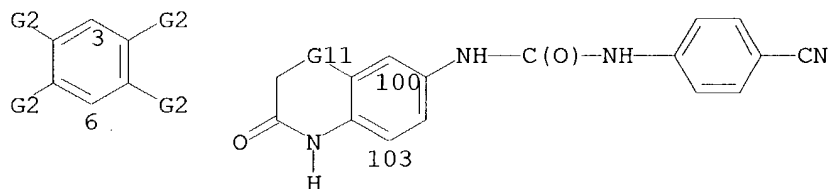
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 5 OF 31 MARPAT COPYRIGHT 2004 ACS on STN

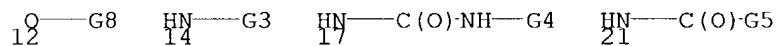
# MSTR 1



G1 = 3-7 6-192 / 199-7 202-192 / (EX 100-7 103-192 / 229-7 232-192 )

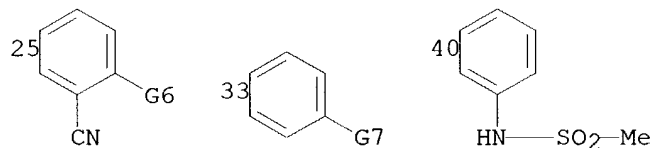


G2 = H / R / (EX X / alkyl / cycloalkyl / alkenyl / cycloalkenyl / alkynyl / aryl / Hy / **CN** / OH / NO2 / CO2H / 12 / NH2 / 14 / SO2NH2 / SO3H / alkylsulfinyl / arylsulfinyl / alkylsulfonyl / arylsulfonyl / acyl / aryloxy carbonyl / alkoxy carbonyl / CONH2 / PO3H2 / SiH3 / 17 / **21**)

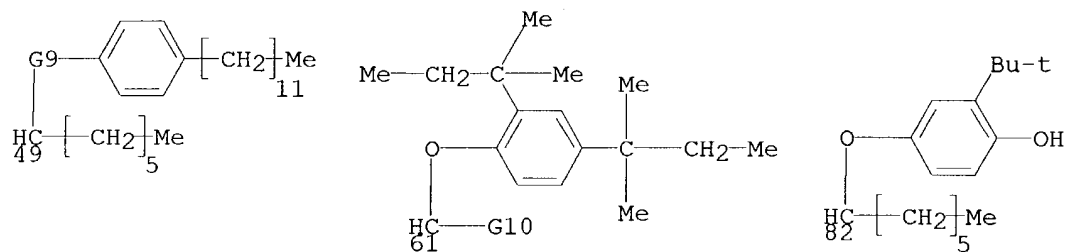


G3 = acyl / CONH2 / alkoxy carbonyl / aryloxy carbonyl / SO2NH2 / alkylsulfonyl / arylsulfonyl

G4 = aryl (SO) / 25 / 33 / 40



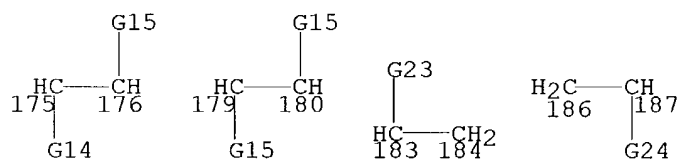
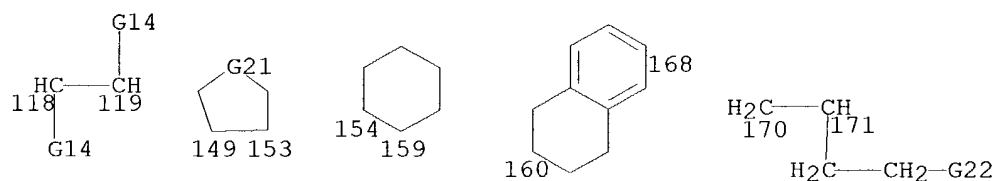
G5 = alkyl / cycloalkyl / **49** / 61 / 82 / Bu-t



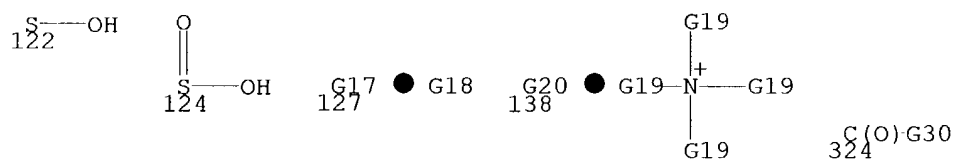
G6 = H / Cl  
 G7 = SO<sub>2</sub>Me / F / CN  
 G8 = alkyl / aryl / SiH<sub>3</sub> / Hy / acyl / CONH<sub>2</sub> /  
 alkoxy carbonyl / aryloxy carbonyl  
 G9 = O / s / CH<sub>2</sub>  
 G10 = hexyl / Bu-n  
 G11 = CMe<sub>2</sub> / NULL  
 G12 = H / 189

S—G13—G16  
189 191

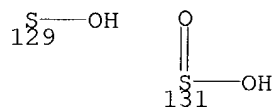
G13 = 118-189 119-191 / 175-189 176-191 /  
 179-189 180-191 / Cb / Hy<AN (2-) C> / (EX 149-189 153-191 /  
 154-189 159-191 / 160-189 168-191 / 170-189 171-191 /  
 183-189 184-191 / 186-189 187-191 )



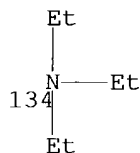
G14 = H / cycloalkyl (SO) / aryl (SO) / Hy (SO) / OH  
 G15 = alkyl (SO) / CO<sub>2</sub>H  
 G16 = R<TX "water soluble group"> / 324 / 122 / 124 /  
 SO<sub>3</sub>H / PO<sub>3</sub>H<sub>2</sub> / 127 / 138



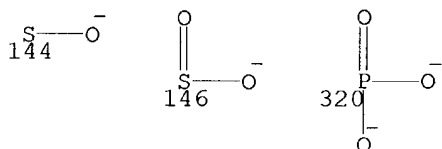
G17 = 129 / 131 / SO<sub>3</sub>H / PO<sub>3</sub>H<sub>2</sub>



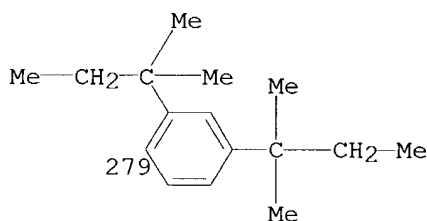
G18 = R<TX "metal"> / NH<sub>3</sub> (SO) / (EX Na / K / Ca / Ba / 134)



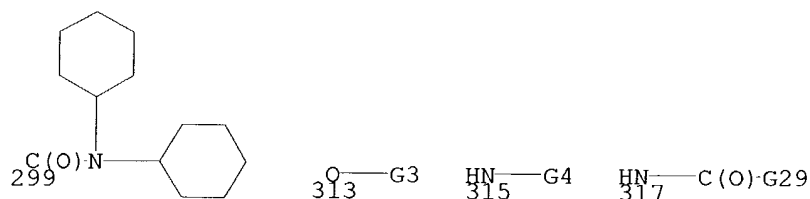
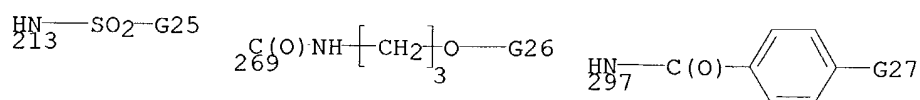
G19 = R / Bu-n  
G20 = 144 / 146 / sulfonate / 320



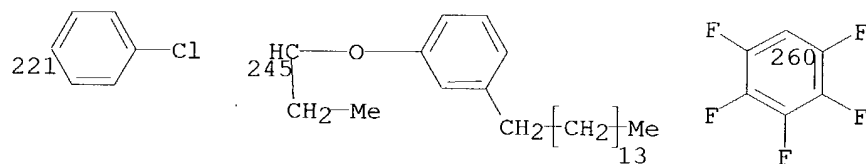
G21 = O / CH<sub>2</sub>  
G22 = OMe / SO<sub>2</sub>Me / H  
G23 = Me / CO<sub>2</sub>H  
G24 = Ph / OH  
G25 = Me / Ph / NMe<sub>2</sub>  
G26 = 279 / dodecyl



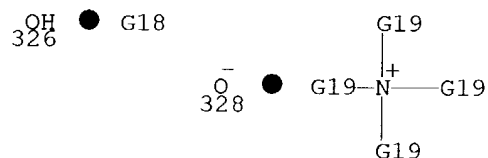
G27 = H / CN  
G28 = H / R / (EX X / alkyl / cycloalkyl / alkenyl / cycloalkenyl / alkynyl / aryl / Hy / CN / OH / NO<sub>2</sub> / CO<sub>2</sub>H / NH<sub>2</sub> / SO<sub>2</sub>NH<sub>2</sub> / SO<sub>3</sub>H / alkylsulfinyl / arylsulfinyl / alkylsulfonyl / arylsulfonyl / acyl / aryloxycarbonyl / alkoxy carbonyl / CONH<sub>2</sub> / PO<sub>3</sub>H<sub>2</sub> / SiH<sub>3</sub> / 313 / 315 / 317 / 213 / 269 / 297 / 299)



G29 = OBU-i / CF3 / Me / 221 / 245 / 260



G30 = OH / 326 / 328

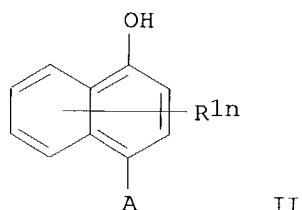
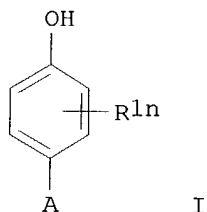


MPL: claim 1

NTE: additional ring formation and substitution also claimed

ACCESSION NUMBER: 136:232123 MARPAT  
 TITLE: Preparation of 4-thio-substituted phenols or 1-naphthols  
 INVENTOR(S): Tsukase, Masaaki; Ito, Takayuki; Kojima, Tetsuro  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 24 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

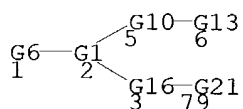
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002069052	A2	20020308	JP 2000-258009	20000828
PRIORITY APPLN. INFO.:			JP 2000-258009	20000828
OTHER SOURCE(S):			CASREACT 136:232123	
GI				



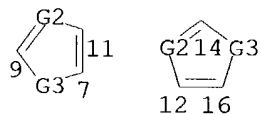
AB 4-Thio-substituted phenols I (A = SCHR<sub>3</sub>CHR<sub>4</sub>X; R<sub>1</sub> = group substitutable with aromatic group; R<sub>3</sub>, R<sub>4</sub> = H, alkyl, aryl, heterocyclyl, OH, CO<sub>2</sub>H, etc.; n = 0-4; X = water-soluble group) or 1-naphthols II (A, R<sub>1</sub> = same as above; m = 0-6) are prepared by reaction of phenols I (A = H; R<sub>1</sub>, n = same as above) or naphthols II (A = H; R<sub>1</sub>, m = same as above) with R<sub>2</sub>SO<sub>2</sub>SCHR<sub>3</sub>CHR<sub>4</sub>X. (R<sub>2</sub> = alkyl, aryl, heterocyclyl, etc.; R<sub>3</sub>, R<sub>4</sub>, X = same as above). 2-[3-(2,4-Di-tert-pentylphenyloxy)propylaminocarbonyl]-5-isobutyloxycarbonylamino-1-hydroxynaphthalene is reacted with p-MeC<sub>6</sub>H<sub>4</sub>SO<sub>2</sub>SCH<sub>2</sub>CH<sub>2</sub>CO<sub>2</sub>H in the presence of K<sub>2</sub>CO<sub>3</sub> in MeCN at 80° for 2 h to give 87% 4-(2-carboxyethyl)thio-2-[3-(2,4-di-tert-pentylphenyloxy)propylaminocarbonyl]-5-isobutyloxycarbonylamino-1-hydroxynaphthalene.

L23 ANSWER 6 OF 31 MARPAT COPYRIGHT 2004 ACS on STN

#### MSTR 1



G1 = 9-1 7-3 11-5 / 14-1 12-3 16-5



2 of 3

G2 = N / CH  
G3 = 17 / S / O

$\text{N} \text{---} \text{G4}$   
17

G4 = H / Me / Et / Pr-n / CH<sub>2</sub>Ph / OH / 19

$\text{H}_2\text{C} \text{---} \text{C(O)} \text{---} \text{G5}$   
19

G5 = OH / OMe / OEt / OPr-n / OCH<sub>2</sub>Ph  
G6 = H / hydrocarbyl<(1-15)> (SO (1-3) G7) / 22 /  
Hy<EC (3-15) A (1-3) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
BD (0-) D> (SO) / (SC Ph (SO (1-) G15) /  
pyridyl (SO (1-) G15) / 84 / cyclohexyl / 86 / o-C<sub>6</sub>H<sub>4</sub>Me)

$\text{G8} \text{---} \text{G9} \text{---} \text{G8}$      $\text{G32} \text{---} \text{G33}$   
22                      84



G7 = F / Cl / Br / I  
G8 = Ak<(1-)> (SO (1-) G7) / Cb<(3-)> (SO (1-) G7)  
G9 = O / S / NH (SO)  
G10 = Ak<EC (1-) C, BD (0-) D (0) T> (SO OH) /  
Cb<EC (3-) C, BD (0-) D> (SO OH) / 25-2 26-6 / 27-2 28-6 /  
29-2 31-6 / 35 / G19

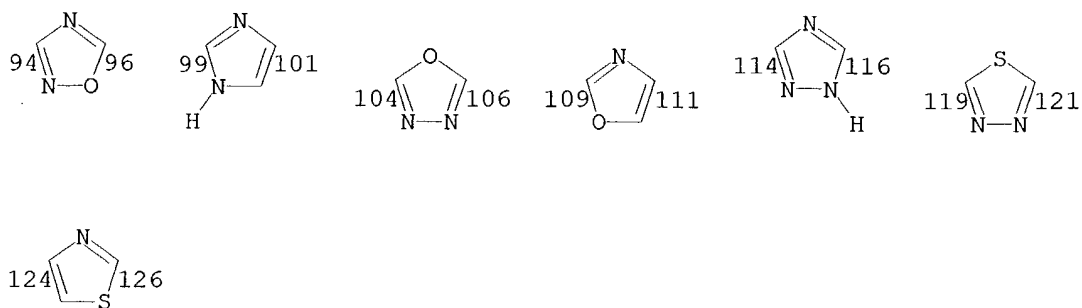
$\text{G11} \text{---} \text{G12}$      $\text{G12} \text{---} \text{G11}$      $\text{G11} \text{---} \text{G12} \text{---} \text{G11}$      $\text{G14} \text{---} \text{O}$   
25 26    27 28    29                      31                      35

G11 = Ak<EC (1-) C, BD (0-) D (0) T> (SO OH)  
G12 = Cb<EC (3-) C, BD (0-) D> (SO OH)  
G13 = H / hydrocarbyl<(1-15)> (SO (1-3) G7) / 32 /  
Hy<EC (3-15) A (1-3) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
BD (0-) D> (SO) / (SC adamantyl / cycloheptyl / cyclohexyl /  
Ph / 37)

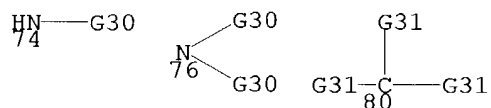
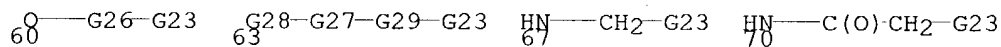
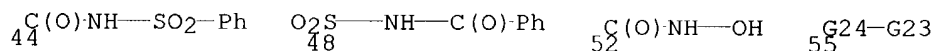
$\text{G8} \text{---} \text{G9} \text{---} \text{G8}$      $\text{G17} \text{---} \text{G18}$   
32                      37

G14 = Ak<EC (1-) C, BD (0-) D (0) T> (SO OH) /  
Cb<EC (3-) C, BD (0-) D> (SO OH)  
G15 = OMe / NMe<sub>2</sub> / CF<sub>3</sub> / Me / F / Cl / Br / I  
G16 = Cb<(5-6)> (SO) / Hy<EC (5-6) A (1-3) Q (0-) N (0-)  
O (0-) S (0) OTHERQ> (SO) / (SC 94-2 96-79 / 99-2 101-79 /  
104-2 106-79 / 109-2 111-79 / 114-2 116-79 / 119-2 121-79 /  
124-2 126-79 )

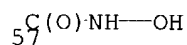




G17 = O / NH  
 G18 = Cb<EC (3-12) C, BD (0-) D> / adamantyl /  
 cycloheptyl / cyclohexyl / Ph  
 G19 = (1-3) CH2  
 G21 = **Ph (SO (1-) G22)** / Hy<EC (6) A (1-3) Q (1-3) N (0)  
 OTHERQ, AR (1-), BD (ALL) N, RC (1), RS (1) E6>  
 (SO (1-) G22) / pyridyl / pyrimidinyl / pyrazinyl /  
 pyridazinyl / triazinyl / (SC pyridyl (SR (1) CO2H))  
 G22 = **44** / 48 / CH2OH / CO2H / tetrazolyl / 52 / SO3H /  
 55 / 60 / 63 / 67 / **70** / hydrocarbyl<(1-6)> / NH2 / 74 / 76  
 /  
 OMe / OH / F / Cl / Br / I / 80



G23 = CO2H / tetrazolyl / 57 / **SO3H**



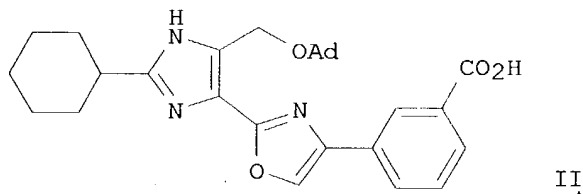
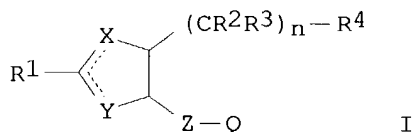
G24 = Ak<EC (1-6) C, BD (0-) D (0-) T> (SO G25)  
 G25 = OH / NH2 / NHCOMe  
 G26 = alkylene<(1-3)>  
 G27 = NH / NMe  
 G28 = SO2 / C(O)  
 G29 = CH2 / CHMe  
 G30 = Me / Et / Pr-n / CH2Ph  
 G31 = F / Cl / Br / I  
 G32 = alkylene<(1-3)>

G33 = Ph (SO (1-) G15) / pyridyl (SO (1-) G15)  
 MPL: claim 1  
 NTE: substitution is restricted  
 NTE: additional nitrogen, oxygen, and/or sulfur atom interruptions in hydrocarbyl moieties in G6 and G13 also claimed

ACCESSION NUMBER: 135:371742 MARPAT  
 TITLE: Preparation and formulation of imidazoles as gastrin and cholecystokinin receptor ligands for treatment of gastrointestinal disorders  
 INVENTOR(S): Kalindjian, Sarkis Barret; Buck, Ildiko Maria; Steel, Katherine Isobel Mary; Wright, Paul Trevor; Tozer, Matthew John; Pether, Michael John; Low, Caroline Minli Rachel  
 PATENT ASSIGNEE(S): James Black Foundation Limited, UK  
 SOURCE: PCT Int. Appl., 68 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001085723	A1	20011115	WO 2001-GB1964	20010504
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
GB 2379443	A1	20030312	GB 2002-25705	20010504
US 2003199565	A1	20031023	US 2003-275741	20030407
PRIORITY APPLN. INFO.:			GB 2000-11089	20000508
			WO 2001-GB1964	20010504

GI

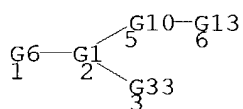


AB Title compds. I [wherein X and Y = independently :N, NR5, :CH, S, or O; R5 = H, Me, Et, Pr, CH2Ph, OH, or CHCO2R6; R6 = H, Me, Et, Pr, or CH2Ph; R1 = H (halo)hydrocarbyl optionally interrupted by N, O, and/or S; R2 = independently H, Me, Et, Pr, or OH; R3 = independently H, Me, Et, or Pr; or R3 groups on neighboring C's may be linked to form a carbocyclic ring or double bond; or R2 and R3 on the same C may form :O; R4 = H or (halo)hydrocarbyl optionally interrupted by N, O, and/or S; Z = a diradical derived from an (un)substituted aromatic or nonarom. 5- or 6-membered carbocycle, wherein 1, 2 or 3 C's are optionally replaced by N, O, and/or S; Q = 6-membered aromatic carbocycle (un)substituted with 1 or 2 V groups and/or 1, 2, or 3 T groups, wherein 1, 2, or 3 C's are optionally replaced by N; V = CONHSO2Ph, SO2NHCOPh, CH2OH, or R7U; U = CO2H, tetrazolyl, CONHOH, or SO3H; R7 = a bond, (un)substituted hydrocarbylene, O-alkylene, SO2NR8CHR9, or CONR8CHR9; R8 and R9 = independently H, Me, or NH(CO)cCH2; c = 0-1; and their pharmaceutically acceptable salts] were prepared as gastrin and/or cholecystokinin receptor ligands for treatment of gastrointestinal disorders. For example, 5-(adamantan-1-yloxymethyl)-2-cyclohexylimidazole-1,4-dicarboxylic acid 1-tert-Bu ester (6-step preparation given) was amidated with 3-(1-amino-2-hydroxyethyl)benzoic acid Me ester (1-step preparation given) to give the 2-hydroxy-1-(3-methoxycarbonylphenyl)ethylcarbamoylimidazole-1-carboxylic acid tert-Bu ester (35%). Cyclization afforded the 4,5-dihydrooxazole (84%), which was reduced to the oxazole (97%), deprotected (90%), and deesterified (62%) to give II. Eighteen invention compds. were tested in an immature rat stomach assay and showed gastrin (CCK2) antagonist activity with pKB values ranging from 5.76 to 8.72. In a guinea-pig pancreas CCK1 binding assay, the compds. exhibited pKi values ranging from 5.01 to 6.87. Compns. comprising I and a proton pump inhibitor are also described. These compns. reduce hyperplasia associated with administration of a proton pump inhibitor alone (no data).

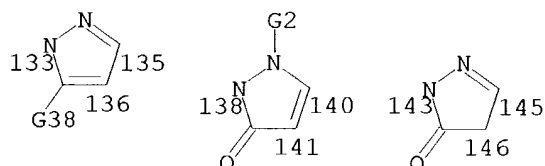
REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 7 OF 31 MARPAT COPYRIGHT 2004 ACS on STN

#### MSTR 1



G1 = 133-1 135-5 136-3 / 138-1 140-5 141-3 / 143-1 145-5 146-3



G2 = H / hydrocarbyl<(1-15)> (SO (1-3) G7) / 152 / Hy<EC (3-15) A (1-2) Q (0-) N (0-) O (0-) S (0) OTHERQ,

BD (0-) D> (SO) / (SC Ph (SO (1-) G15) /  
pyridyl (SO (1-) G15) / 171)

<sup>G8</sup><sub>152</sub>—<sup>G9</sup><sub>171</sub>—<sup>G8</sup><sub>171</sub>    <sup>G26</sup><sub>171</sub>—<sup>G37</sup><sub>171</sub>

G6 = hydrocarbyl<(1-15)> (SO (1-3) G7) / 22 /  
Hy<EC (3-15) A (1-3) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
BD (0-) D> (SO) / (SC Ph (SO (1-) G15) /  
pyridyl (SO (1-) G15) / 159)

<sup>G8</sup><sub>22</sub>—<sup>G9</sup><sub>159</sub>—<sup>G8</sup><sub>159</sub>    <sup>G26</sup><sub>159</sub>—<sup>G37</sup><sub>159</sub>

G7 = F / Cl / Br / I  
G8 = Ak<(1-)> (SO (1-) G7) / Cb<(3-)> (SO (1-) G7)  
G9 = O / S / NH (SO)  
G10 = Ak<EC (1-) C, BD (0-) D (0) T> (SO OH) /  
Cb<EC (3-) C, BD (0-) D> (SO OH) / 25-2 26-6 / 27-2 28-6 /  
29-2 31-6 / 35 / G36

<sup>G11</sup><sub>25</sub>—<sup>G12</sup><sub>26</sub>    <sup>G12</sup><sub>27</sub>—<sup>G11</sup><sub>28</sub>    <sup>G11</sup><sub>29</sub>—<sup>G12</sup><sub>31</sub>—<sup>G11</sup><sub>31</sub>    <sup>G14</sup><sub>35</sub>=O

G11 = Ak<EC (1-) C, BD (0-) D (0) T> (SO OH)  
G12 = Cb<EC (3-) C, BD (0-) D> (SO OH)  
G13 = hydrocarbyl<(1-15)> (SO (1-3) G7) / 32 /  
Hy<EC (3-15) A (1-2) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
BD (0-) D> (SO) / (SC adamantyl / cycloheptyl / cyclohexyl /  
Ph / 37)

<sup>G8</sup><sub>32</sub>—<sup>G9</sup><sub>37</sub>—<sup>G8</sup><sub>37</sub>    <sup>G17</sup><sub>37</sub>—<sup>G18</sup><sub>37</sub>

G14 = Ak<EC (1-) C, BD (0-) D (0) T> (SO OH) /  
Cb<EC (3-) C, BD (0-) D> (SO OH)  
G15 = OMe / NMe2 / CF3 / Me / F / Cl / Br / I  
G16 = 39-2 40-79 / **C(O)** / 80-2 81-79 / 82-2 83-79 /  
84-2 86-79 / 89-2 93-79

<sup>C(O)NH</sup><sub>39</sub><sub>40</sub>    <sup>G31</sup><sub>80</sub>—<sup>C(O)</sup><sub>81</sub>    <sup>C(O)</sup><sub>82</sub>—<sup>G31</sup><sub>83</sub>    <sup>G31</sup><sub>84</sub>—<sup>C(O)</sup><sub>86</sub>—<sup>G31</sup><sub>86</sub>    <sup>C(O)NH</sup><sub>89</sub>—CH<sub>2</sub>—<sup>C(O)NH</sup><sub>93</sub>

G17 = O / NH  
G18 = Cb<EC (3-12) C, BD (0-) D> / adamantyl /  
cycloheptyl / cyclohexyl / Ph  
G19 = **Ph (SO (1-) G22)** / 42 / 94

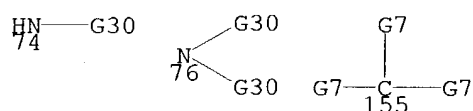
<sup>G20</sup><sub>42</sub>—<sup>G21</sup><sub>94</sub>    <sup>G32</sup><sub>94</sub>—CO<sub>2</sub>H

G20 = (1-2) CH<sub>2</sub>

G21 = Ph (SO)  
 G22 = **44** / 48 / CH<sub>2</sub>OH / CO<sub>2</sub>H / tetrazolyl / 52 / SO<sub>3</sub>H /  
 55 / 60 / 63 / 67 / **70** / hydrocarbyl<(1-6)> / NH<sub>2</sub> / 74 / 76  
 /  
 OMe / OH / F / Cl / Br / I / 155

$\overset{44}{\text{C}}(\text{O})\text{NH}-\text{SO}_2\text{-Ph}$      $\text{O}_2\text{S}-\text{NH}-\text{C}(\text{O})\text{-Ph}$      $\overset{52}{\text{C}}(\text{O})\text{NH}-\text{OH}$      $\overset{55}{\text{G24-G23}}$

$\overset{60}{\text{O}}-\text{G26-G23}$      $\overset{63}{\text{G28-G27-G29-G23}}$      $\overset{67}{\text{HN}}-\text{CH}_2\text{-G23}$      $\overset{70}{\text{HN}}-\text{C}(\text{O})\text{CH}_2\text{-G23}$



G23 = CO<sub>2</sub>H / tetrazolyl / 57 / **SO<sub>3</sub>H**

$\overset{57}{\text{C}}(\text{O})\text{NH}-\text{OH}$

G24 = Ak<EC (1-6) C, BD (0-) D (0-) T> (SO G25)  
 G25 = OH / NH<sub>2</sub> / NHCOMe  
 G26 = alkylene<(1-3)>  
 G27 = NH / NMe  
 G28 = SO<sub>2</sub> / C(O)  
 G29 = CH<sub>2</sub> / CHMe  
 G30 = Me / Et / Pr-n / CH<sub>2</sub>Ph  
 G31 = NH / 87

$\overset{87}{\text{N}}-\text{G30}$

G32 = (1-3) CH<sub>2</sub>  
 G33 = 96 / Ph (SO) / 173 / 175

$\overset{96}{\text{G16-G19}}$      $\overset{173}{\text{G20-G21}}$      $\overset{175}{\text{G32-CO}_2\text{H}}$

G36 = (1-4) CH<sub>2</sub>  
 G37 = pyridyl (SO) / Ph (SO)  
 G38 = H / OH / hydrocarbyl<(1-15)> (SO (1-3) G7) / 161 /  
 Hy<EC (3-15) A (1-2) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
 BD (0-) D> (SO) / (SC 164 / Ph (SO (1-) G15) /  
 pyridyl (SO (1-) G15) / 166 / 170 / alkoxy<(1-8)>

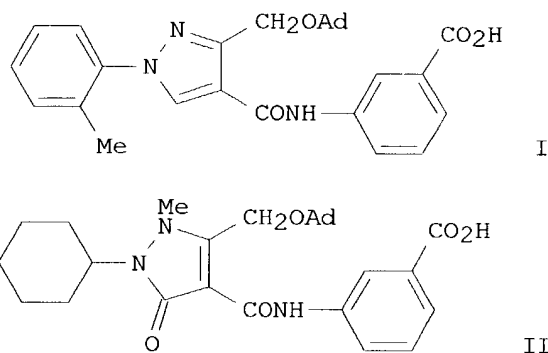
$\overset{161}{\text{G8-G9-G8}}$      $\overset{164}{\text{O-G39}}$      $\overset{166}{\text{G26-G37}}$      $\overset{170}{\text{O-G26-G37}}$

G39 = Cb<EC (3-12) C, AR (0), BD (0-) D>  
 MPL: claim 1  
 NTE: or pharmaceutically acceptable salts  
 NTE: substitution is restricted  
 NTE: additional nitrogen, oxygen, and/or sulfur atom interruptions in hydrocarbyl moieties also claimed

ACCESSION NUMBER: 135:371741 MARPAT  
 TITLE: Pyrazole derivatives and their use as gastrin and cholecystokinin receptor ligands  
 INVENTOR(S): McDonald, Iain Mair; Low, Caroline Minli Rachel; Steel, Katherine Isobel Mary; Spencer, John  
 PATENT ASSIGNEE(S): James Black Foundation Limited, UK  
 SOURCE: PCT Int. Appl., 48 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001090078	A1	20011129	WO 2001-GB1976	20010504
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
GB 2378443	A1	20030212	GB 2002-25710	20010504
US 2003207874	A1	20031106	US 2003-275614	20030423
PRIORITY APPLN. INFO.:			GB 2000-11095	20000508
			WO 2001-GB1976	20010504

GI



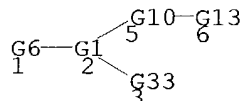
AB Pyrazolecarboxanilides such as I and II (Ad = 1-adamantyl) were prepared and tested for gastrin (CCK2) antagonist activity and hyperplasia reduction associated with administration of proton pump inhibitors. Thus, I was prepared

in 3 steps starting from AdOCH<sub>2</sub>COCH<sub>2</sub>CO<sub>2</sub>CH<sub>2</sub>Ph. In a test for gastrin antagonist activity in an immature rat stomach assay, addition of I led to a pKB value of 5.66 ± 0.24.

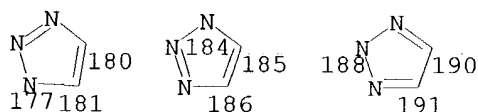
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 8 OF 31 MARPAT COPYRIGHT 2004 ACS on STN

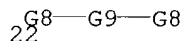
# MSTR 1



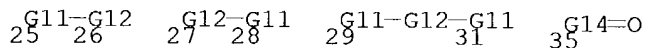
G1 = 177-1 180-5 181-3 / 184-1 185-5 186-3 /  
188-1 190-5 191-3



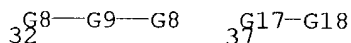
G6 = H / hydrocarb<(1-15)> (SO (1-3) G7) / 22 /  
Hy<EC (3-15) A (1-3) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
BD (0-) D> (SO) / (SC Ph (SO (1-) G15))



G7 = F / Cl / Br / I  
G8 = Ak<(1-)> (SO (1-) G7) / Cb<(3-)> (SO (1-) G7)  
G9 = O / S / NH (SO)  
G10 = Ak<EC (1-) C, BD (0-) D (0) T> (SO OH) /  
Cb<EC (3-) C, BD (0-) D> (SO OH) / 25-2 26-6 / 27-2 28-6 /  
29-2 31-6 / 35 / G36



G11 = Ak<EC (1-) C, BD (0-) D (0) T> (SO OH)  
G12 = Cb<EC (3-) C, BD (0-) D> (SO OH)  
G13 = hydrocarb<(1-15)> (SO (1-3) G7) / 32 /  
Hy<EC (3-15) A (1-2) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
BD (0-) D> (SO) / (SC adamantyl / cycloheptyl / cyclohexyl /  
Ph / 37)



G14 = Ak<EC (1-) C, BD (0-) D (0) T> (SO OH) /  
Cb<EC (3-) C, BD (0-) D> (SO OH)

G15 = OMe / NMe2 / CF3 / Me / F / Cl / Br / I  
 G16 = 39-2 40-79 / **C(O)** / 80-2 81-79 / 82-2 83-79 /  
 84-2 86-79 / 89-2 93-79

$\begin{matrix} \text{C}(\text{O})\text{NH} \\ 39 \quad 40 \end{matrix} \quad \begin{matrix} \text{G31-C}(\text{O}) \\ 80 \quad 81 \end{matrix} \quad \begin{matrix} \text{C}(\text{O})\text{G31} \\ 82 \quad 83 \end{matrix} \quad \begin{matrix} \text{G31-C}(\text{O})\text{G31} \\ 84 \quad 86 \end{matrix} \quad \begin{matrix} \text{C}(\text{O})\text{NH-CH}_2\text{-C}(\text{O})\text{NH} \\ 89 \quad 93 \end{matrix}$

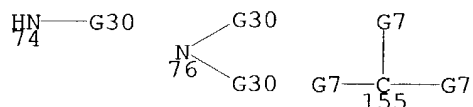
G17 = O / NH  
 G18 = Ch<EC (3-12) C, BD (0-) D> / adamantyl /  
 cycloheptyl / cyclohexyl / Ph  
 G19 = **Ph (SO (1-) G22)** / 42 / 94

$\begin{matrix} \text{G20-G21} \\ 42 \end{matrix} \quad \begin{matrix} \text{G32-CO}_2\text{H} \\ 94 \end{matrix}$

G20 = (1-2) CH2  
 G21 = Ph (SO)  
 G22 = **44** / 48 / CH2OH / CO2H / tetrazolyl / 52 / SO3H /  
 55 / 60 / 63 / 67 / **70** / hydrocarbyl<(1-6)> / NH2 / 74 / 76  
 /  
 OMe / OH / F / Cl / Br / I / 155

$\begin{matrix} \text{C}(\text{O})\text{NH-SO}_2\text{-Ph} \\ 44 \end{matrix} \quad \begin{matrix} \text{O}_2\text{S-NH-C}(\text{O})\text{-Ph} \\ 48 \end{matrix} \quad \begin{matrix} \text{C}(\text{O})\text{NH-OH} \\ 52 \end{matrix} \quad \begin{matrix} \text{G24-G23} \\ 55 \end{matrix}$

$\begin{matrix} \text{O-G26-G23} \\ 60 \end{matrix} \quad \begin{matrix} \text{G28-G27-G29-G23} \\ 63 \end{matrix} \quad \begin{matrix} \text{HN-CH}_2\text{-G23} \\ 67 \end{matrix} \quad \begin{matrix} \text{HN-C}(\text{O})\text{-CH}_2\text{-G23} \\ 70 \end{matrix}$



G23 = CO2H / tetrazolyl / 57 / **SO3H**

$\begin{matrix} \text{C}(\text{O})\text{NH-OH} \\ 57 \end{matrix}$

G24 = Ak<EC (1-6) C, BD (0-) D (0-) T> (SO G25)  
 G25 = OH / NH2 / NHCOMe  
 G26 = alkylene<(1-3)>  
 G27 = NH / NMe  
 G28 = SO2 / C(O)  
 G29 = CH2 / CHMe  
 G30 = Me / Et / Pr-n / CH2Ph  
 G31 = NH / 87

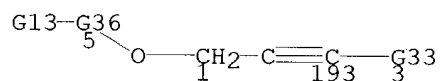
$\begin{matrix} \text{N-G30} \\ 87 \end{matrix}$



G32 = (1-3) CH2  
 G33 = 96 / Ph (SO) / 173 / 175

$\overset{\text{G16-G19}}{96-79} \quad \overset{\text{G20-G21}}{173-175} \quad \overset{\text{G32-CO}_2\text{H}}{175}$

G36 = (1-4) CH2  
 MPL: claim 1  
 NTE: or pharmaceutically acceptable salts  
 NTE: substitution is restricted  
 NTE: additional nitrogen, oxygen, and/or sulfur atom interruptions in hydrocarbyl moieties also claimed

**MSTR 4**

G7 = F / Cl / Br / I  
 G8 = Ak<(1-)> (SO (1-) G7) / Cb<(3-)> (SO (1-) G7)  
 G9 = O / S / NH (SO)  
 G13 = hydrocarbyl<(1-15)> (SO (1-3) G7) / 32 /  
 Hy<EC (3-15) A (1-2) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
 BD (0-) D> (SO) / (SC adamantyl / cycloheptyl / cyclohexyl /  
 Ph / 37)

$\overset{\text{G8-G9-G8}}{32} \quad \overset{\text{G17-G18}}{37}$

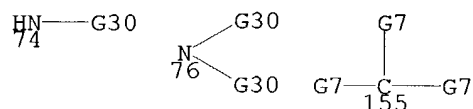
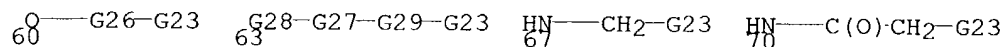
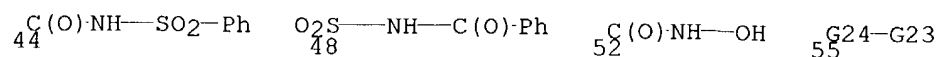
G16 = 39-193 40-79 / **C(O)** / 80-193 81-79 / 82-193 83-79 /  
 84-193 86-79 / 89-193 93-79

$\overset{\text{C(O)NH}}{39-40} \quad \overset{\text{G31-C(O)}}{80-81} \quad \overset{\text{C(O)G31}}{82-83} \quad \overset{\text{G31-C(O)G31}}{84-86} \quad \overset{\text{C(O)NH-CH}_2\text{-C(O)NH}}{89-93}$

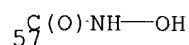
G17 = O / NH  
 G18 = Cb<EC (3-12) C, BD (0-) D> / adamantyl /  
 cycloheptyl / cyclohexyl / Ph  
 G19 = **Ph (SO (1-) G22)** / 42 / 94

$\overset{\text{G20-G21}}{42} \quad \overset{\text{G32-CO}_2\text{H}}{94}$

G20 = (1-2) CH2  
 G21 = Ph (SO)  
 G22 = **44** / 48 / CH2OH / CO2H / tetrazolyl / 52 / SO3H /  
 55 / 60 / 63 / 67 / **70** / hydrocarbyl<(1-6)> / NH2 / 74 / 76  
 /  
 OMe / OH / F / Cl / Br / I / 155



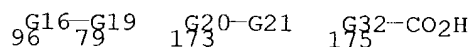
G23 = CO2H / tetrazolyl / 57 / **SO3H**



G24 = Ak<EC (1-6) C, BD (0-) D (0-) T> (SO G25)  
 G25 = OH / NH<sub>2</sub> / NHCOMe  
 G26 = alkylene<(1-3)>  
 G27 = NH / NMe  
 G28 = SO<sub>2</sub> / C(O)  
 G29 = CH<sub>2</sub> / CHMe  
 G30 = Me / Et / Pr-n / CH<sub>2</sub>Ph  
 G31 = NH / 87



G32 = (1-3) CH2  
G33 = 96 / Ph (SO) / 173 / 175



G36 = (1-4) CH2  
MPL: claim 21  
NTE: or protected derivatives  
NTE: and precursors

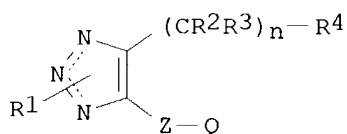
ACCESSION NUMBER: 135:357933 MARPAT  
 TITLE: Preparation and formulation of triazoles as gastrin  
 and cholecystokinin receptor ligands for treatment of  
 gastrointestinal disorders  
 INVENTOR(S): Linney, Ian Duncan; McDonald, Iain Mair  
 PATENT ASSIGNEE(S): James Black Foundation Limited, UK  
 SOURCE: PCT Int. Appl., 51 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

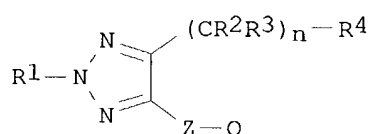
## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001085704	A1	20011115	WO 2001-GB1987	20010504
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
GB 2378703	A1	20030219	GB 2002-25708	20010504
US 2003195237	A1	20031016	US 2002-275615	20021107
PRIORITY APPLN. INFO.:			GB 2000-11094	20000508
			WO 2001-GB1987	20010504

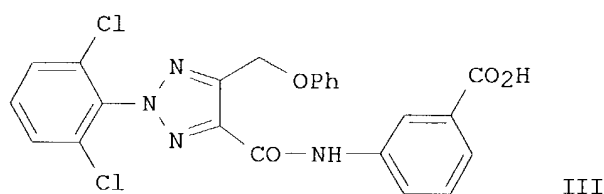
GI



I



II



III

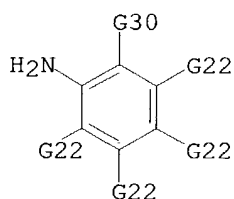
AB Title compds. I and II [wherein n = 1-4; R1 = H or (halo)hydrocarbyl optionally interrupted by N, O, and/or S; R2 = independently H, Me, Et, Pr, or OH; R3 = independently H, Me, Et, or Pr; or 2 R3 groups on adjacent C's may form a carbocyclic ring or double bond; or R2 and R3 on the same C may form :O; R4 = (halo)hydrocarbyl optionally interrupted by N, O, and/or S; Z = (NR5)aCO(NR6)b, CONR5CH2CONR6, CO2, CH2CH2, CH:CH, CH2NR6, or a bond; a = 0 or 1; b = 0 or 1; R5 and R6 = independently H, Me, Et, Pr, or CH2Ph; Q = R7V or (un)substituted phenyl(alkyl); or R7 and R6 together with the N to which R6 is attached may form a piperidine or pyrrolidine ring substituted by V; R7 = CH2, CH2CH2, or (un)substituted phenylalkylene; V = CONHSO2Ph, SO2NHCOPh, CH2OH, or R8U; U = CO2H, tetrazolyl, CONHOH, or SO3H; R8 = a bond or (un)substituted hydrocarbylene; and their pharmaceutically acceptable salts] were prepared as gastrin and/or cholecystokinin receptors ligands for treatment of gastrointestinal disorders. For example, 2-hydroxyimino-3-oxo-4-phenoxybutyric acid Et ester was cyclized with 2,6-dichlorophenylhydrazine•HCl to give the 2H-[1,2,3]-triazole-4-carboxylic acid Et ester (37%). Saponification (87%), followed by amidation with

3-NH<sub>2</sub>C<sub>6</sub>H<sub>4</sub>CO<sub>2</sub>Me (62%) and deesterification with LiOH (95%), gave III, which was converted to the N-methyl-D-glucamine salt. Thirty-two invention compds. were tested in an immature rat stomach assay and a CCK1 binding assay and showed gastrin (CCK2) antagonist activity with pK<sub>B</sub> values ranging from 5.43 ± 0.30 to 8.37 ± 0.22 and binding activity with pK<sub>i</sub> values ranging from 5.2 to 6.1. Compns. comprising I or II and a proton pump inhibitor are also described. These compns. reduce hyperplasia associated with administration of a proton pump inhibitor alone (no data).

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 9 OF 31 MARPAT COPYRIGHT 2004 ACS on STN

## MSTR 2



G22 = (3-) H / **44** / 48 / CH<sub>2</sub>OH / CO<sub>2</sub>H / tetrazolyl / 52 / SO<sub>3</sub>H / 55 / 60 / 63 / 67 / **70**

<sub>44</sub>C(O)NH—SO<sub>2</sub>—Ph    <sub>48</sub>O<sub>2</sub>S—NH—C(O)—Ph    <sub>52</sub>C(O)NH—OH    <sub>55</sub>G<sub>24</sub>—G<sub>23</sub>

<sub>60</sub>O—G<sub>26</sub>—G<sub>23</sub>    <sub>63</sub>G<sub>28</sub>—G<sub>27</sub>—G<sub>29</sub>—G<sub>23</sub>    <sub>67</sub>HN—CH<sub>2</sub>—G<sub>23</sub>    <sub>70</sub>HN—C(O)—CH<sub>2</sub>—G<sub>23</sub>

G<sub>23</sub> = CO<sub>2</sub>H / tetrazolyl / 57 / **SO<sub>3</sub>H**

<sub>57</sub>C(O)NH—OH

G<sub>24</sub> = Ak<EC (1-6) C, BD (0-) D (0-) T> (SO G<sub>25</sub>)

G<sub>25</sub> = OH / NH<sub>2</sub> / NHCOMe

G<sub>26</sub> = alkylene<(1-3)>

G<sub>27</sub> = NH / NMe

G<sub>28</sub> = SO<sub>2</sub> / C(O)

G<sub>29</sub> = CH<sub>2</sub> / CHMe

G<sub>30</sub> = NH<sub>2</sub> / **Me** / SH / OH

MPL: claim 17

NTE: or protected derivatives

ACCESSION NUMBER: 135:357930 MARPAT

TITLE: Preparation and formulation of 2-[5-(adamantylloxymethyl)-2-cyclohexyl-1H-imidazol-4-yl]benzoxazoles and benzimidazoles as gastrin and

cholecystokinin receptor ligands for treatment of gastrointestinal disorders

INVENTOR(S): Kalindjian, Sarkis Barret; Buck, Ildiko Maria; Low, Caroline Minli Rachel; Tozer, Matthew John

PATENT ASSIGNEE(S): James Black Foundation Limited, UK

SOURCE: PCT Int. Appl., 35 pp.  
CODEN: PIXXD2

DOCUMENT TYPE: Patent

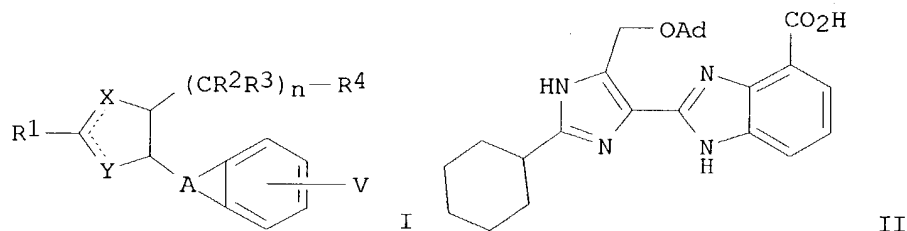
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001085724	A1	20011115	WO 2001-GB1982	20010504
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
GB 2377442	A1	20030115	GB 2002-25704	20010504
US 2003191116	A1	20031009	US 2003-275613	20030410
PRIORITY APPLN. INFO.:			GB 2000-11092	20000508
			WO 2001-GB1982	20010504

GI



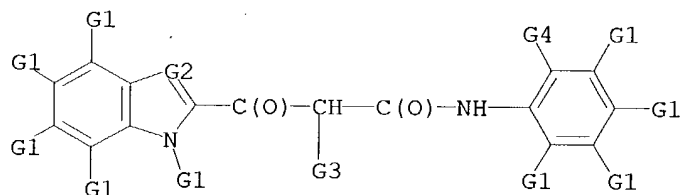
AB Title compds. I [wherein X and Y = independently :N, NR<sub>5</sub>, :CH, O, or S; R<sub>5</sub> = H, Me, Et, Pr, CH<sub>2</sub>Ph, OH, or CH<sub>2</sub>CO<sub>2</sub>R<sub>6</sub>; R<sub>6</sub> = H, Me, Et, Pr, or CH<sub>2</sub>Ph; A = (un)substituted 5- or 6-membered carbocyclic or heterocyclic ring; n = 1-4; R<sub>1</sub> = H or (halo)hydrocarbyl optionally interrupted by N, O, or S; R<sub>2</sub> = independently H, Me, Et, Pr, or OH; R<sub>3</sub> = independently H, Me, Et, or Pr; or 2 adjacent R<sub>3</sub> groups may form a carbocyclic ring or double bond; or R<sub>2</sub> and R<sub>3</sub> on the same C may form :O; R<sub>4</sub> = (halo)hydrocarbyl optionally interrupted by N, O, and/or S; V = CONHSO<sub>2</sub>Ph, SO<sub>2</sub>NHCOPh, CH<sub>2</sub>OH, R<sub>7</sub>U; U = CO<sub>2</sub>H, tetrazolyl, CONHOH, or SO<sub>3</sub>H; R<sub>7</sub> = a bond, (un)substituted hydrocarbylene, O-alkylene, SO<sub>2</sub>NR<sub>8</sub>CHR<sub>9</sub>, CONR<sub>8</sub>CHR<sub>9</sub>, or NH(CO)cCH<sub>2</sub>; R<sub>8</sub> and R<sub>9</sub> = independently H or Me; c = 0 or 1; and their pharmaceutically acceptable salts] were prepared as gastrin and/or cholecystokinin receptor ligands. For example, 2-amino-3-nitrobenzoic acid Me ester was reduced using Pd/C (75%). The diamine was treated with 5-(adamantan-1-ylloxymethyl)-1-benzyl-2-cyclohexyl-1H-imidazole-4-carbaldehyde (6-step preparation given) to give the substituted 2-(1H-imidazol-4-yl)-1H-

benzimidazole-4-carboxylic acid Me ester (31%). Reductive deprotection with Pd/C (91%), followed by deesterification using LiOH (77%), afforded II. In an immature rat stomach assay, II showed gastrin (CCK2) antagonist activity with pKB of  $6.43 \pm 0.35$ . Compns. comprising I and a proton pump inhibitor for treatment of gastrointestinal disorders are also described. These compns. reduce hyperplasia associated with administration of a proton pump inhibitor alone (no data).

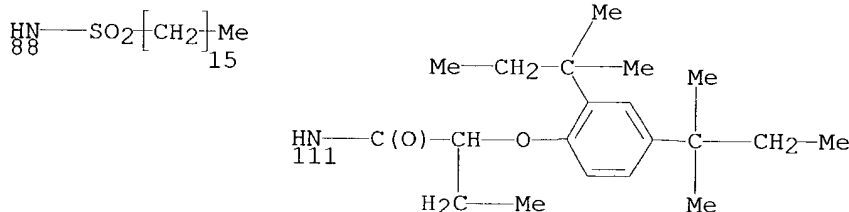
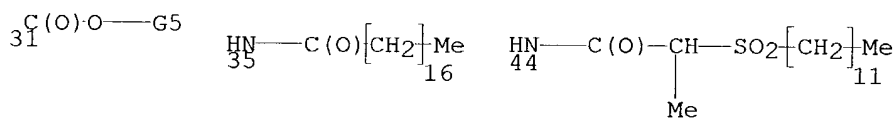
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 10 OF 31 MARPAT } COPYRIGHT 2004 ACS on STN

# MSTR 1



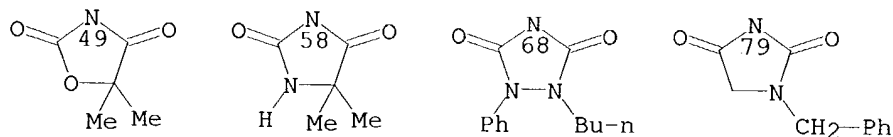
G1 = H / R / (EX Me / Ph / 31 / 35 / 44 / 88 / 111)

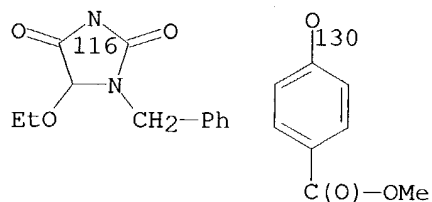


G2 = N / 86

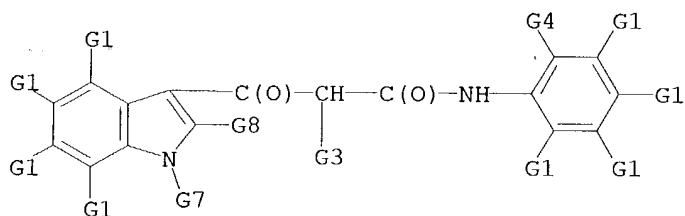


G3 = R<TX "group released by reacting with a color developer"> / (EX 49 / 58 / 68 / 79 / 116 / 130)

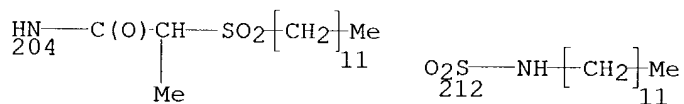
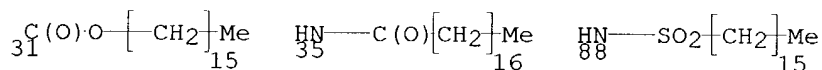




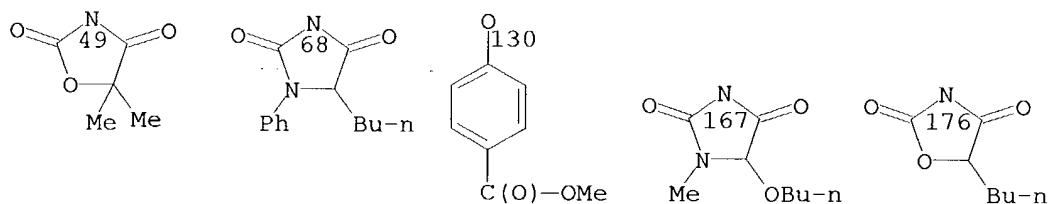
G4 = X / alkoxy / (EX F / **C1** / Br / OMe)  
 G5 = hexadecyl / dodecyl  
 G6 = H / R / (EX Me / Cl)  
 MPL: claim 1

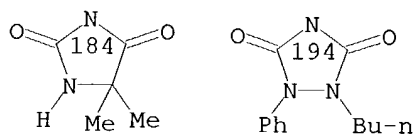
**MSTR 5**

G1 = H / R / (**EX 204** / 35 / **31** / 212 / 88)



G3 = R<TX "group released by reacting with a color developer"> / (EX 49 / 167 / 68 / 130 / 176 / 184 / 194)





G4 = X / alkoxy / (EX F / **Cl** / Br / OMe)  
 G7 = H / R / (EX Ph / Bu-t / Bu-n / Pr-i / Me)  
 G8 = X / alkoxy / aryloxy / acylamino / 162 / (EX F /  
 Cl / Br / OEt / NHCOMe / CO2Me)

HN—SO<sub>2</sub>—G9  
 162

G9 = R / (EX Me)  
 MPL: claim 5

ACCESSION NUMBER: 135:233824 MARPAT  
 TITLE: Silver halide color photographic material and yellow coupler  
 INVENTOR(S): Ishii, Fumio; Hirabayashi, Shigehito  
 PATENT ASSIGNEE(S): Konica Co., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 43 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001249434	A2	20010914	JP 2000-60306	20000306
PRIORITY APPLN. INFO.: GI			JP 2000-60306	20000306

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The material has each  $\geq 1$  blue-, green-, and red-sensitive Ag halide emulsion layer on a support, in which  $\geq 1$  blue-sensitive emulsion layer contains the yellow coupler I, II, III, IV or V (R1-3 = substituent; n, m = 0-4; X1 = N, CR5; R5 = H, substituent; Y = halo, alkoxy; Z = group released by reacting with a color developer oxidation product; X2 = O, S; X3, X4 = N, CR5; R5 = H, substituent; R4 = halo, alkoxy, aryloxy, acylamino, sulfonamide). The yellow coupler gives great mol. absorption coefficient and high color development, the material showing reduced fog, high color development, and improved storage stability.

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MSTR 1



G33

G1

G1 = Ph (SO (1-) G2) / naphthyl (SO)  
 G2 = F / Cl / Br / I / NO2 / CN / OH / CF3 / OCF3 / NH2 /  
 CO2H / CONH2 / SH / SO2NH2 / alkyl<(1-6)> / alkenyl<(2-6)> /  
 alkynyl<(2-6)> / alkoxy<(1-6)> / CHO / alkylcarbonyl<(1-6)> /  
 OCHO / alkylcarbonyloxy<(1-6)> / alkylamino<(1-6)> /  
 dialkylamino<(1-6)> / NHCHO / alkylcarbonylamino<(1-6)> /  
 alkylaminocarbonyl<(1-6)> / dialkylaminocarbonyl<(1-6)> /  
 267 / alkoxycarbonyl<(1-6)> / alkylaminosulfonyl<(1-6)> /  
 dialkylaminosulfonyl<(1-6)> / 269 / 271 / 279 / 280 / 290 /  
 289 / 361 / 365 / Ph (SO) / 291 / 295 / 300 / 303 / 306 /  
 309 / 315 / 339 / 342 / 349 / 353 / (SC Me / OMe / CO2Me /  
 Bu-t)

$\overset{G7}{267} - \overset{G10}{267}$      $\overset{G23}{269} - \overset{G24}{269}$      $\overset{G35}{271} - \overset{G25}{271}$      $\overset{G27}{279} - \overset{G23}{279} - \overset{G24}{279}$      $\overset{G27}{280} - \overset{G35}{280} - \overset{G25}{280}$

$\overset{C(O)}{289} - NH - \overset{G35}{289} - \overset{G25}{289}$      $\overset{C(O)}{290} - NH - \overset{G23}{290} - \overset{G24}{290}$      $\overset{G29}{291} - \overset{G30}{291}$      $\overset{G32}{295} - \overset{G31}{295} - \overset{G30}{295}$

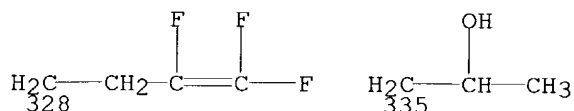
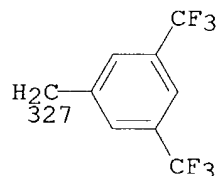
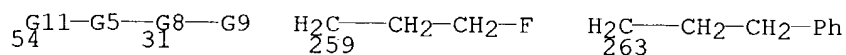
$\overset{O_2S}{300} - NH - \overset{G30}{300}$      $\overset{C(O)}{303} - NH - \overset{G30}{303}$      $\overset{HN}{306} - SO_2 - \overset{G30}{306}$      $\overset{C(O)}{309} - \overset{G31}{309} - O - \overset{C(O)}{309} - \overset{G31}{309} - \overset{G30}{309}$

$\overset{HN}{315} - \overset{C(O)}{315} - \overset{G31}{315} - \overset{G30}{315}$      $\overset{G31}{339} - \overset{G32}{339} - \overset{G30}{339}$      $\overset{HN}{342} - \overset{C(O)}{342} - \overset{G30}{342}$

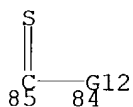
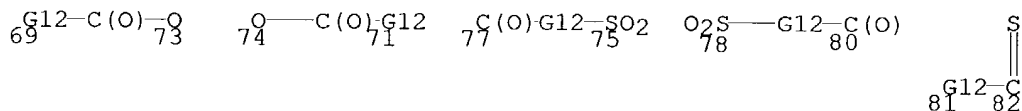
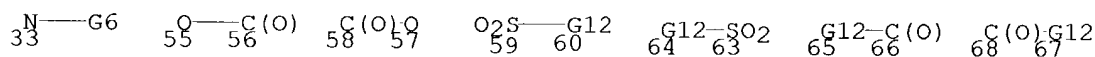
$\overset{G31}{349} - \overset{C(O)}{349} - O - \overset{G31}{349} - \overset{C(O)}{349} - \overset{G30}{349}$      $\overset{G31}{353} - \overset{C(O)}{353} - NH - \overset{G30}{353}$      $\overset{HN}{361} - \overset{C(O)}{361} - \overset{G23}{361} - \overset{G24}{361}$

$\overset{HN}{365} - \overset{C(O)}{365} - \overset{G35}{365} - \overset{G25}{365}$

G3 = Ak<EC (1-8) C, BD (0-) D (0-) T> (SO (1-) G4) / 54 /  
 H / (SC Me / Pr-n / CH2CH2CHMe2 / CH2Ph / 259 / 263 /  
 pentyl / CH2CH2Ph / 327 / 328 / Bu-n / Pr-i / Bu-i / Et /  
 335)

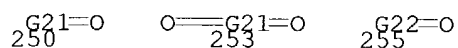


G4 = F / Cl / Br / I / NO2 / CN / OH / CF3 / OCF3 / NH2 /  
 CO2H / CONH2 / SH / SO2NH2 / alkoxy<(1-6)> / CHO /  
 alkylcarbonyl<(1-6)> / alkoxy carbonyl<(1-6)> / OCHO /  
 alkylcarbonyloxy<(1-6)> / alkylamino<(1-6)> /  
 dialkylamino<(1-6)> / NHCHO / alkylcarbonylamino<(1-6)> /  
 alkylaminocarbonyl<(1-6)> / dialkylaminocarbonyl<(1-6)> /  
 alkoxy<(1-6)> (SR alkoxy<(1-6)>) / alkylthio<(1-6)> /  
 alkylsulfinyl<(1-6)> / alkylsulfonyl<(1-6)> /  
 alkylaminosulfonyl<(1-6)> / dialkylaminosulfonyl<(1-6)> /  
 aryl (SO) / Hy<EC (5-14) A (-5) Q (0-) N (0-) O (0-) S (0)  
 OTHERQ, AR (0), RC (1-3)> (SO) /  
 heteroaryl<EC (5-14) A (-5) Q (0-) N (0-) O (0-) S (0)  
 OTHERQ, RC (1-3)> (SO) / cycloalkyl<(3-12)> (SO) / (EX Ph /  
 naphthyl / biphenyl)  
 G5 = C(0) / O / 55-54 56-31 / 58-54 57-31 / S / S(0) /  
 SO2 / 59-54 60-31 / 64-54 63-31 / NH / 33 / 65-54 66-31 /  
 68-54 67-31 / 69-54 73-31 / 74-54 71-31 / 77-54 75-31 /  
 78-54 80-31 / 81-54 82-31 / 85-54 84-31

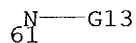


G6 = alkyl<(1-4)>  
 G7 = S / S(O) / SO2  
 G8 = (0-6) CH2  
 G9 = aryl (SO) / heteroaryl<EC (5-14) A (-5) Q (0-)  
 N (0-) O (0-) S (0) OTHERQ, RC (1-3)> (SO) / 250 / 253 /

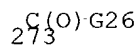
Hy<EC (5-14) A (-5) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
 BD (ALL) SE, RC (1-2)> (SO) / 255 / cycloalkyl<(3-10)> (SO) /  
 (EX Ph / naphthyl / biphenyl)



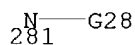
G10 = alkyl<(1-6)>  
 G11 = Ak<EC (1-8) C, BD (0-) D (0-) T> (SO)  
 G12 = NH / 61



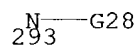
G13 = alkyl<(1-4)>  
 G21 = Hy<EC (5-14) A (-5) Q (0-) N (0-) O (0-) S (0)  
 OTHERQ, AR (1-), RC (1-3)> (SO)  
 G22 = Hy<EC (5-14) A (-5) Q (0-) N (0-) O (0-) S (0)  
 OTHERQ, AR (0), BD (ALL) SE, RC (1-2)> (SO)  
 G23 = **(1-6) CH2**  
 G24 = F / Cl / Br / I / NO2 / alkoxy<(1-6)> / OCF3 / **SH** /  
 SO2NH2 / SO2Me / alkylamino<(1-6)> / dialkylamino<(1-6)>  
 G25 = CN / CF3 / 273



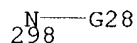
G26 = OH / NH2 / alkoxy<(1-6)> / alkylamino<(1-6)> /  
 dialkylamino<(1-6)>  
 G27 = O / NH / 281



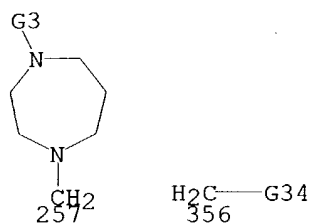
G28 = alkyl<(1-6)>  
 G29 = alkylene<(1-6)> / O / NH / 293



G30 = Ph (SO)  
 G31 = alkylene<(1-6)> / (SC CH2)  
 G32 = O / NH / 298 / SO2



G33 = **257** / 356 / CHO

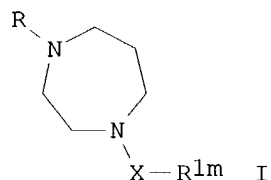


G34 = R<TX "suitable displaceable group"> / (EX Cl / Br / OSO2Me / OSO2C6H4Me-p)  
 G35 = alkylene<EC (1-6) C, DC (0) M3>  
 DER: or pharmaceutically acceptable salts or in vivo hydrolyzable esters, amides, or carbamates  
 MPL: claim 1  
 NTE: substitution is restricted  
 NTE: also incorporates claim 13

ACCESSION NUMBER: 133:89555 MARPAT  
 TITLE: Homopiperazine derivatives as selective emopamil inhibitors  
 INVENTOR(S): Simpson, Thomas Richard; Walsh, Sally Ann; Warawa, Edward John  
 PATENT ASSIGNEE(S): Astrazeneca UK Limited, UK  
 SOURCE: PCT Int. Appl., 57 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000039110	A1	20000706	WO 1999-GB4330	19991220
W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
EP 1140880	A1	20011010	EP 1999-962380	19991220
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			
JP 2002533449	T2	20021008	JP 2000-591021	19991220
PRIORITY APPLN. INFO.:			GB 1998-28435	19981224
			WO 1999-GB4330	19991220

GI

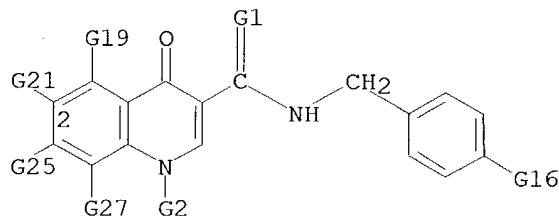


AB A method for the preparation of homopiperazines (I) (R = H, C1-8alkyl, C2-8alkenyl or C2-8alkynyl substituted or unsubstituted with a variety of groups; X = Ph and naphthyl; R1 at each occurrence is independently selected from, for example, halo, Cn, OH< CF3, CF3O, NH2, carboxy, carbamoyl, mercapto, sulfamoyl; m = 0-5) and compns. containing them are claimed. I are pharmacol. useful in the treatment of neurol. disorders.

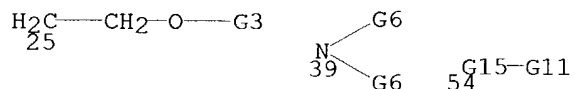
REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 12 OF 31 MARPAT COPYRIGHT 2004 ACS on STN  
(ALL HITS ARE ITERATION INCOMPLETES)

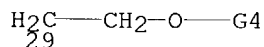
**MSTR 1 ITERATION INCOMPLETE**



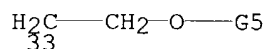
G1 = O / S  
G2 = CH2CH2OH / 25 / 39 / Hy<EC (1-3) Q (1-) N (0-) O (0-) S (0) OTHERQ, AN (1-) N, BD (0-) D, RC (1-2), RS (0-) E4 (0-) E5 (0-) E6 (0-) E7 (0) OTHER> (SO) / 54 / Hy<EC (1-3) Q (0-) N (0-) O (0-) S (0) OTHERQ, AN (1-) C, BD (0-) D, RC (1-2), RS (0-) E4 (0-) E5 (0-) E6 (0-) E7 (0) OTHER> (SO) / Ak<EC (1-7) C, BD (0-) D (0-) T> (SO (1-) G17) / Cb<EC (3-8) C, BD (0-) D (0-) T> (SO G18)



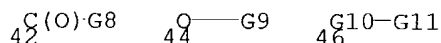
G3 = alkyl<(1-7)> (SO OH) / CH2CH2OH / 29



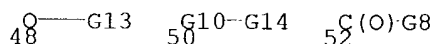
G4 = alkyl<(1-7)> (SO OH) / CH2CH2OH / 33



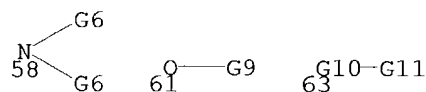
G5 = alkyl<(1-7)> (SO OH)  
 G6 = H / aryl<EC (6-) C, RC (1-2)> (SO) /  
 Ak<EC (1-7) C, BD (0-) D (0-) T> (SO (1-) G7)  
 G7 = NH2 / alkylamino<(1-7)> (SO OH) /  
 dialkylamino<(1-7)> (SO OH) / 42 / OH / 44 / CO2H /  
 alkoxycarbonyl<(1-10)> / Hy<EC (1-3) Q (0-) N (0-) O (0-)  
 S (0) OTHERQ, BD (0-) D, RC (1-2),  
 RS (0-) E4 (0-) E5 (0-) E6 (0-) E7 (0) OTHER> (SO) /  
 aryl<EC (6-) C, RC (1-2)> (SO) / CN / 46 / F / Cl / Br / I



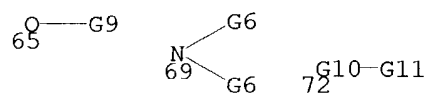
G8 = NH2 / alkylamino<(1-7)> (SO OH) /  
 dialkylamino<(1-7)> (SO OH)  
 G9 = alkyl<(1-7)> (SO OH) /  
 Hy<EC (1-3) Q (0-) N (0-) O (0-) S (0) OTHERQ, BD (0-) D,  
 RC (1-2), RS (0-) E4 (0-) E5 (0-) E6 (0-) E7 (0) OTHER>  
 (SO) / aryl<EC (6-) C, RC (1-2)> (SO)  
 G10 = S / S(O) / SO2  
 G11 = aryl<EC (6-) C, RC (1-2)> (SO) /  
 Hy<EC (1-3) Q (0-) N (0-) O (0-) S (0) OTHERQ, BD (0-) D,  
 RC (1-2), RS (0-) E4 (0-) E5 (0-) E6 (0-) E7 (0) OTHER>  
 (SO) / Ak<EC (1-7) C, BD (0-) D (0-) T> (SO (1-) G12)  
 G12 = OH / 48 / Hy<EC (1-3) Q (0-) N (0-) O (0-) S (0)  
 OTHERQ, BD (0-) D, RC (1-2), RS (0-) E4 (0-) E5 (0-) E6 (0-)  
 E7 (0) OTHER> (SO) / aryl<EC (6-) C, RC (1-2)> (SO) / NH2 /  
 alkylamino<(1-7)> (SO OH) / dialkylamino<(1-7)> (SO OH) /  
 CN / SH / 50 / F / Cl / Br / I / 52



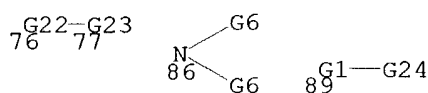
G13 = alkyl<(1-7)> (SO OH) /  
 aryl<EC (6-) C, RC (1-2)> (SO)  
 G14 = alkyl<(1-6)> / aryl<EC (6-) C, RC (1-2)> (SO)  
 G15 = O / S / S(O) / SO2  
 G16 = Cl / F / Br / CN / NO2  
 G17 = 58 / Hy<EC (1-3) Q (1-) N (0-) O (0-) S (0) OTHERQ,  
 AN (1-) N, BD (0-) D, RC (1-2),  
 RS (0-) E4 (0-) E5 (0-) E6 (0-) E7 (0) OTHER> (SO) / OH /  
 61 / CO2H / alkoxycarbonyl<(1-10)> /  
 Hy<EC (1-3) Q (0-) N (0-) O (0-) S (0) OTHERQ, BD (0-) D,  
 RC (1-2), RS (0-) E4 (0-) E5 (0-) E6 (0-) E7 (0) OTHER>  
 (SO) / aryl<EC (6-) C, RC (1-2)> (SO) / CN / 63 /  
 alkoxy<(2-4)> (SO)



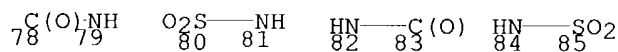
G18 = OH / 65 / CO<sub>2</sub>H / alkoxy carbonyl<(1-10)> /  
 Hy<EC (1-3) Q (0-) N (0-) O (0-) S (0) OTHERQ, BD (0-) D,  
 RC (1-2), RS (0-) E4 (0-) E5 (0-) E6 (0-) E7 (0) OTHER>  
 (SO) / aryl<EC (6-) C, RC (1-2)> (SO) / CN / 69 /  
 Hy<EC (1-3) Q (1-) N (0-) O (0-) S (0) OTHERQ, AN (1-) N,  
 BD (0-) D, RC (1-2), RS (0-) E4 (0-) E5 (0-) E6 (0-) E7 (0)  
 OTHER> (SO) / 72 / alkyl<(1-7)> (SO)



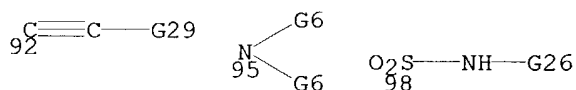
G19 = H / F / Cl / Br / I / alkyl<(1-4)> (SO (1-3) G20)  
 G20 = F / Cl / Br / I  
 G21 = H / aryl<EC (6-) C, RC (1-2)> (SO) /  
 Hy<EC (1-3) Q (0-) N (0-) O (0-) S (0) OTHERQ, BD (0-) D,  
 RC (1-2), RS (0-) E4 (0-) E5 (0-) E6 (0-) E7 (0) OTHER>  
 (SO) / 76 / 86 / 89 / Ak<EC (1-8) C, BD (0-) D (0-) T> (SO)



G22 = 78-2 79-77 / 80-2 81-77 / 82-2 83-77 / 84-2 85-77



G23 = H / Hy<EC (1-3) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
 BD (0-) D, RC (1-2), RS (0-) E4 (0-) E5 (0-) E6 (0-) E7 (0)  
 OTHER> (SO) / aryl<EC (6-) C, RC (1-2)> (SO) /  
 cycloalkyl<(3-8)> / alkyl<(1-7)> (SO)  
 G24 = alkyl<(2-7)> (SO OH)  
 G25 = H / F / Cl / Br / I / 92 / 95 / SO<sub>2</sub>NH<sub>2</sub> / 98 /  
 Hy<EC (1-3) Q (0-) N (0-) O (0-) S (0) OTHERQ, BD (0-) D,  
 RC (1-2), RS (0-) E4 (0-) E5 (0-) E6 (0-) E7 (0) OTHER>  
 (SO) / alkyl<(1-7)> (SO OH)



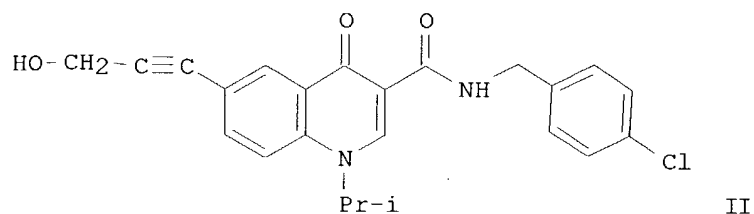
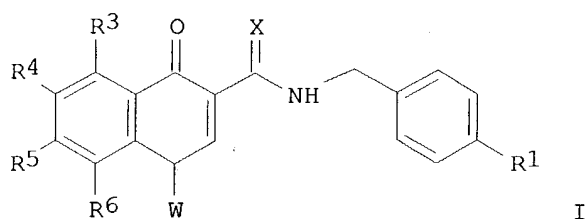
G26 = Hy<EC (1-3) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
 BD (0-) D, RC (1-2), RS (0-) E4 (0-) E5 (0-) E6 (0-) E7 (0)  
 OTHER> (SO) / aryl<EC (6-) C, RC (1-2)> (SO) /  
 cycloalkyl<(3-8)> / alkyl<(1-7)> (SO)  
 G27 = H / F / Cl / Br / I / alkylthio<(1-7)> /  
 alkoxy<(1-7)> (SO (1-) G28) / Ak<EC (1-7) C,  
 BD (0-) D (0-) T> (SO)  
 G28 = F / Cl / Br / I / OH  
 G29 = Hy<EC (1-3) Q (0-) N (0-) O (0-) S (0) OTHERQ,  
 BD (0-) D, RC (1-2), RS (0-) E4 (0-) E5 (0-) E6 (0-) E7 (0)  
 OTHER> (SO) / 102 / alkyl<(1-7)> (SO)





EP 1140850 A1 20011010 EP 1999-967145 19991222  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO  
 JP 2002534416 T2 20021015 JP 2000-592270 19991222  
 AU 760207 B2 20030508 AU 2000-23486 19991222  
 NZ 512824 A 20030926 NZ 1999-512824 19991222  
 ZA 2001004711 A 20020610 ZA 2001-4711 20010608  
 NO 2001003383 A 20010907 NO 2001-3383 20010706  
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 US 1999-140610P 19990623  
 WO 1999-US27960 19991222

GI

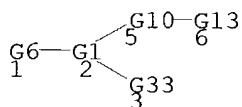


AB The invention provides quinolinecarboxamides I (X = O, S; W = R2, etc., where R1-R6 = a wide variety of defined groups, with 125 examples), e.g., hydroxypropynyl derivative II, and their pharmaceutically acceptable salts which are useful as antiviral agents, in particular, as agents against viruses of the herpes family. Activities of the compds. against HCMV, HSV, and VZV polymerase are presented. Pharmaceutical compns. comprising compds. I are claimed (no examples).

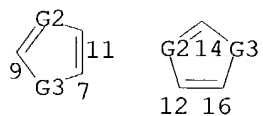
REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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MSTR 1



G1 = 9-1 7-3 11-5 / 14-1 12-3 16-5



G2 = N / CH  
G3 = 17 / S / O

<sub>17</sub>N—G4

G4 = H / Me / Et / Pr-n / CH<sub>2</sub>Ph / OH / 19

<sub>19</sub>H<sub>2</sub>C—C(O)-G5

G5 = OH / OMe / OEt / OPr-n / OCH<sub>2</sub>Ph  
G6 = H / hydrocarbyl<(1-15)> (SO (1-3) G7) / 22 /  
Hy<EC (1-3) Q (0-) N (0-) O (0-) S (0) OTHERQ, BD (0-) D>  
(SO) / (SC Ph (SO (1-) G15))

<sub>22</sub>G8—G9—G8

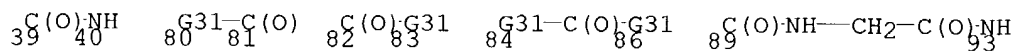
G7 = F / Cl / Br / I  
G8 = Ak<(1-)> (SO (1-) G7) / Cb<(3-)> (SO (1-) G7)  
G9 = O / S / NH (SO)  
G10 = Ak<EC (1-) C, BD (0-) D (0) T> (SO OH) /  
Cb<EC (3-) C, BD (0-) D> (SO OH) / 25-2 26-6 / 27-2 28-6 /  
29-2 31-6 / 35

<sub>25</sub>G11-G12 <sub>27</sub>G12-G11 <sub>29</sub>G11-G12-G11 <sub>31</sub>G14=O <sub>35</sub>

G11 = Ak<EC (1-) C, BD (0-) D (0) T> (SO OH)  
G12 = Cb<EC (3-) C, BD (0-) D> (SO OH)  
G13 = hydrocarbyl<(1-15)> (SO (1-2) G7) / 32 /  
Hy<EC (1-2) Q (0-) N (0-) O (0-) S (0) OTHERQ, BD (0-) D>  
(SO) / (SC adamantyl / cycloheptyl / cyclohexyl / Ph / 37)

<sub>32</sub>G8—G9—G8 <sub>37</sub>G17-G18

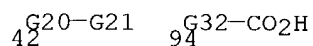
G14 = Ak<EC (1-) C, BD (0-) D (0) T> (SO OH) /  
Cb<EC (3-) C, BD (0-) D> (SO OH)  
G15 = OMe / NMe<sub>2</sub> / CF<sub>3</sub> / Me / F / Cl / Br / I  
G16 = 39-2 40-79 / **C(O)** / 80-2 81-79 / 82-2 83-79 /  
84-2 86-79 / 89-2 93-79



G17 = O / NH

G18 = Cb<(3-12)> / adamantyl / cycloheptyl / cyclohexyl / Ph

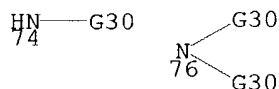
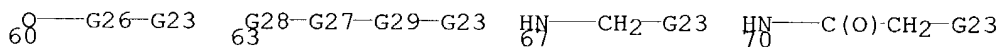
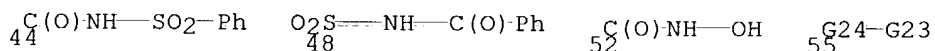
G19 = Ph (SR (1-) G22) / 42 / 94



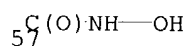
G20 = (1-2) CH<sub>2</sub>

G21 = Ph (SR (1-) G22)

G22 = 44 / 48 / CH<sub>2</sub>OH / CO<sub>2</sub>H / tetrazolyl / 52 / SO<sub>3</sub>H / 55 / 60 / 63 / 67 / 70 / hydrocarbyl<(1-6)> / NH<sub>2</sub> / 74 / 76 / OMe / OH / F / Cl / Br / I



G23 = CO<sub>2</sub>H / tetrazolyl / 57 / SO<sub>3</sub>H



G24 = Ak<EC (1-6) C, BD (0-) D (0-) T> (SO G25)

G25 = OH / NH<sub>2</sub> / NHCOMe

G26 = alkylene<(1-3)>

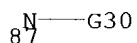
G27 = NH / NMe

G28 = SO<sub>2</sub> / C(O)

G29 = CH<sub>2</sub> / CHMe

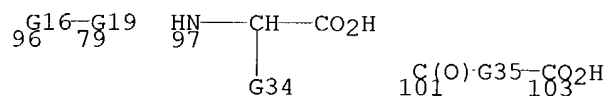
G30 = Me / Et / Pr-n / CH<sub>2</sub>Ph

G31 = NH / 87

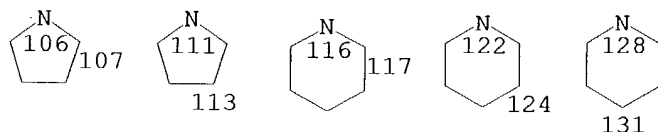


G32 = (1-3) CH<sub>2</sub>

G33 = 96 / 97 / 101 / CO<sub>2</sub>H / NCO

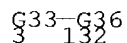
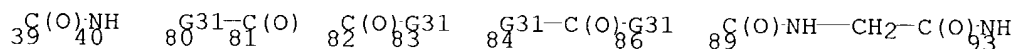


G34 = Ph (SO)

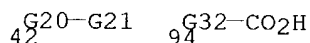
$$\text{G35} = \frac{106-101}{116-101} \frac{107-103}{117-103} / \frac{111-101}{122-101} \frac{113-103}{124-103} / \frac{128-101}{131-103}$$


DER: or pharmaceutically acceptable salts  
MPL: claim 1  
NTE: substitution is restricted  
NTE: also incorporates claim 23  
NTE: additional nitrogen, oxygen, and/or sulfur atom interruptions in hydrocarbonyl moieties in G6 and G13 also claimed

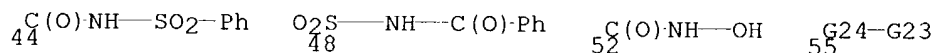
## MSTR 2

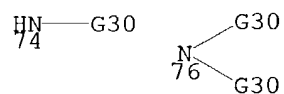
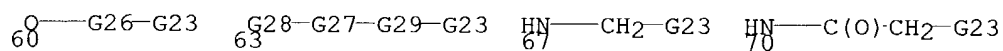

$$G16 = 39-132 \ 40-79 \ / \ \mathbf{c(o)} \ / \ 80-132 \ 81-79 \ / \ 82-132 \ 83-79 \ / \ 84-132 \ 86-79 \ / \ 89-132 \ 93-79$$


G19 = Ph (SR (1-) G22) / 42 / 94

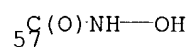

$$\text{G20} = (1-2) \text{ CH}_2$$
$$G21 = Ph (SR (1 - ) G22)$$

G22 = **44** / 48 / CH2OH / CO2H / tetrazolyl / 52 / SO3H /  
55 / 60 / 63 / 67 / **70** / hydrocarbyl<(1-6)> / NH2 / 74 / 76  
/  
OMe / OH / F / Cl / Br / I

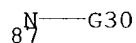




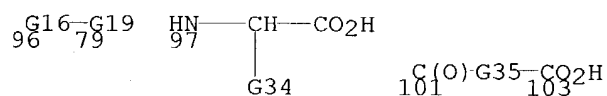
G23 = CO<sub>2</sub>H / tetrazolyl / 57 / **SO<sub>3</sub>H**



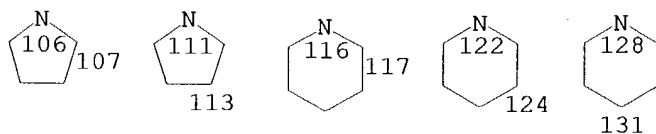
G24 = Ak<EC (1-6) C, BD (0-) D (0-) T> (SO G25)  
 G25 = OH / NH<sub>2</sub> / NHCOMe  
 G26 = alkylene<(1-3)>  
 G27 = NH / NMe  
 G28 = SO<sub>2</sub> / C(O)  
 G29 = CH<sub>2</sub> / CHMe  
 G30 = Me / Et / Pr-n / CH<sub>2</sub>Ph  
 G31 = NH / 87



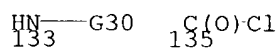
G32 = (1-3) CH<sub>2</sub>  
 G33 = 96 / 97 / 101



G34 = Ph (SO)  
 G35 = 106-101 107-103 / 111-101 113-103 /  
 116-101 117-103 / 122-101 124-103 / 128-101 131-103

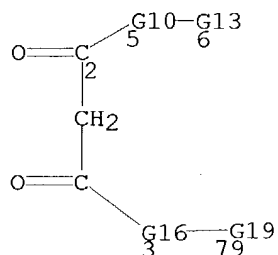


G36 = NH<sub>2</sub> / 133 / 135



DER: or protected derivatives  
 MPL: claim 21  
 NTE: also incorporates claim 24

## MSTR 3



G7 = F / Cl / Br / I  
 G8 = Ak<(1-)> (SO (1-) G7) / Cb<(3-)> (SO (1-) G7)  
 G9 = O / S / NH (SO)  
 G10 = Ak<EC (1-) C, BD (0-) D (0) T> (SO OH) /  
       Cb<EC (3-) C, BD (0-) D> (SO OH) / 25-2 26-6 / 27-2 28-6 /  
       29-2 31-6 / 35

$\begin{matrix} G11-G12 \\ 25 \end{matrix}$ 
 $\begin{matrix} G12-G11 \\ 27 \end{matrix}$ 
 $\begin{matrix} G11-G12-G11 \\ 29 \end{matrix}$ 
 $\begin{matrix} G14=O \\ 35 \end{matrix}$

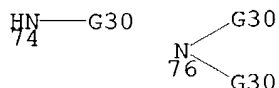
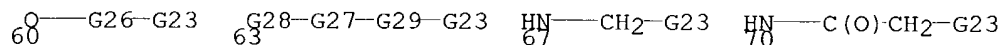
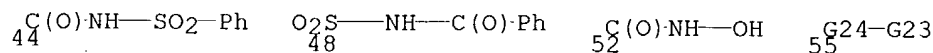
G11 = Ak<EC (1-) C, BD (0-) D (0) T> (SO OH)  
 G12 = Cb<EC (3-) C, BD (0-) D> (SO OH)  
 G13 = hydrocarbyl<(1-15)> (SO (1-2) G7) / 32 /  
       Hy<EC (1-2) Q (0-) N (0-) O (0-) S (0) OTHERQ, BD (0-) D>  
       (SO) / (SC adamantyl / cycloheptyl / cyclohexyl / Ph / 37)

$\begin{matrix} G8-G9-G8 \\ 32 \end{matrix}$ 
 $\begin{matrix} G17-G18 \\ 37 \end{matrix}$

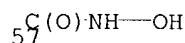
G14 = Ak<EC (1-) C, BD (0-) D (0) T> (SO OH) /  
       Cb<EC (3-) C, BD (0-) D> (SO OH)  
 G16 = NH / O  
 G17 = O / NH  
 G18 = Cb<(3-12)> / adamantyl / cycloheptyl / cyclohexyl /  
       Ph  
 G19 = Ph (SR (1-) G22) / 42 / 94

$\begin{matrix} G20-G21 \\ 42 \end{matrix}$ 
 $\begin{matrix} G32-CO_2H \\ 94 \end{matrix}$

G20 = (1-2) CH2  
 G21 = Ph (SR (1-) G22)  
 G22 = 44 / 48 / CH2OH / CO2H / tetrazolyl / 52 / SO3H /  
       55 / 60 / 63 / 67 / 70 / hydrocarbyl<(1-6)> / NH2 / 74 / 76  
       /  
       OMe / OH / F / Cl / Br / I



G23 = CO<sub>2</sub>H / tetrazolyl / 57 / SO<sub>3</sub>H



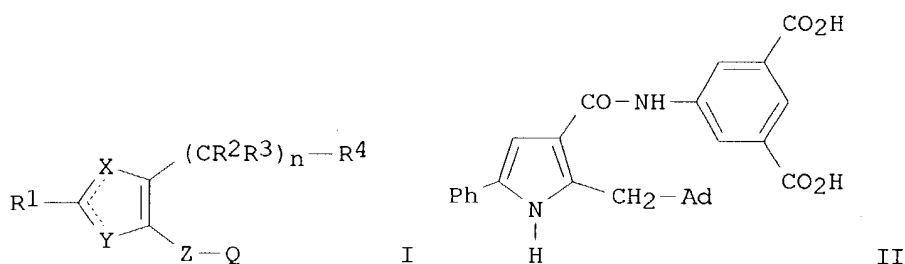
G24 = Ak<EC (1-6) C, BD (0-) D (0-) T> (SO G25)  
 G25 = OH / NH<sub>2</sub> / NHCOMe  
 G26 = alkylene<(1-3)>  
 G27 = NH / NMe  
 G28 = SO<sub>2</sub> / C(O)  
 G29 = CH<sub>2</sub> / CHMe  
 G30 = Me / Et / Pr-n / CH<sub>2</sub>Ph  
 G32 = (1-3) CH<sub>2</sub>  
 MPL: claim 25

ACCESSION NUMBER: 132:347569 MARPAT  
 TITLE: Preparation gastrin and cholecystokinin receptor  
 ligands  
 INVENTOR(S): Kalindjian, Sarkis Barret; Buck, Ildiko Maria; Linney,  
 Ian Duncan; Wright, Paul Trevor; McDonald, Iain Mair;  
 Steel, Katherine Isobel Mary; Hull, Robert Antony  
 David; Roberts, Sonia Patricia; Gaffen, John David;  
 Vinter, Jeremy Gilbert; Walker, Martin Keith; Black,  
 James Whyte; Watt, Gillian Fairfull; Harper, Elaine  
 Anne; Shankley, Nigel Paul; Tozer, Matthew John;  
 Dunstone, David John; Pether, Michael John; Lilley,  
 Elliot James; Sykes, David Andrew; Low, Caroline Minli  
 Rachel; Griffin, Eric Peter; Wright, Laurence  
 PATENT ASSIGNEE(S): James Black Foundation Limited, UK  
 SOURCE: PCT Int. Appl., 210 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000027823	A1	20000518	WO 1999-GB3733	19991109
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,				

IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA,  
 MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,  
 SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM,  
 AZ, BY, KG, KZ, MD, RU, TJ, TM  
 RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,  
 DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,  
 CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  
 CA 2346108 AA 20000518 CA 1999-2346108 19991109  
 BR 9915194 A 20010807 BR 1999-15194 19991109  
 EP 1178969 A1 20020213 EP 1999-954196 19991109  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO  
 JP 2002529455 T2 20020910 JP 2000-581003 19991109  
 NO 2001002288 A 20010702 NO 2001-2288 20010509  
 US 6479531 B1 20021112 US 2001-831385 20010802  
 PRIORITY APPLN. INFO.: GB 1998-24536 19981109  
 GB 1999-16786 19990716  
 WO 1999-GB3733 19991109

GI



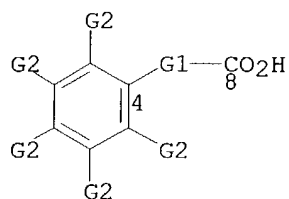
AB Title compds. (I) [wherein X and Y = independently N, N(R5), CH, S, or O; n = 1-4; Z = (NR7)aCO(NR8)b, CONR7CH2CONR8, CO2, CH2CH2, CH=CH, CH2N(R8), or a bond; a and b = independently 0 or 1; Q = R9V (un)substituted phenyl(alkyl); V = CONHSO2Ph, SO2NHCOPh, CH2OH, etc.; R1 = H or (halo)hydrocarbonyl where  $\leq 3$  C atoms may be replaced by N, O, and/or S atoms; R2 = H, Me, Et, Pr, or OH; R3 = H, Me, Et, or Pr; or 2 adjacent R3 groups form a carbocyclic ring when n > 1; or R2 and R3 on the same C atom together = O; R4 = (halo)hydrocarbonyl where  $\leq 2$  C atoms may be replaced by N, O, and/or S atoms; R5 = H, Me, Et, Pr, benzyl, OH, or carboxymethyl (esters); R7 and R8 = independently H, Me, Et, Pr, or benzyl; R9 = CH2, CH2CH2, or (un)substituted phenylmethylene; or R8 and R9, together with the adjacent N, form a substituted piperidine or pyrrolidine] and their pharmaceutically acceptable salts were prepared. Examples include syntheses and biol. data for 314 compds. Thus, 2-adamantan-1-ylmethyl-5-phenyl-1H-pyrrole-3-carboxylic acid (3-step preparation given) was coupled with 5-aminoisophthalic acid dibenzyl ester (45%), followed by deprotection (98%) to give II. II had pKi of 6.72 for binding at the CCKB mouse cortical membranes and pKb of 6.33 for gastrin antagonist activity.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

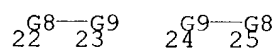
L23 ANSWER 14 OF 31 MARPAT } COPYRIGHT 2004 ACS on STN



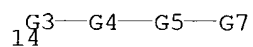
## MSTR 1



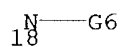
G1 = R<TX "linking group"> / (EX alkylene / 22-4 23-8 / 24-4 25-8 / CH<sub>2</sub>CH<sub>2</sub>)



G2 = (1) 14 / H / alkyl / alkenyl / aralkyl / aryl / X / NO<sub>2</sub> / **CN** / alkoxy / (EX Me)

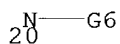


G3 = **NH** / 18



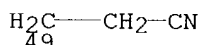
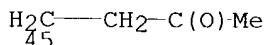
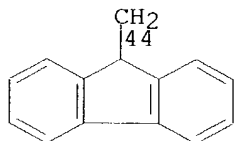
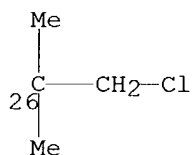
G4 = **(1-2) C(O)**

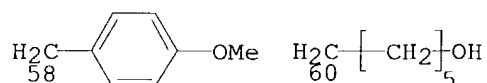
G5 = NH / 20 / O / **s**



G6 = alkyl / alkenyl / aralkyl / aryl / cycloalkyl / (EX Ph (SO) / Me)

G7 = alkyl (SO) / alkenyl (SO) / aralkyl (SO) / aryl (SO) / cycloalkyl (SO) / cycloalkenyl (SO) / heteroaryl (SO) / (EX Ph (SO) / naphthyl (SO) / Bu-t / C(Me)<sub>2</sub>CH<sub>2</sub>Me / 26 / Et / 44 / CH<sub>2</sub>Ph / 45 / 49 / 58 / CH<sub>2</sub>CH<sub>2</sub>Ph / octyl / 60 / Bu-n)



G8 = O / S / SO<sub>2</sub>G9 = alkylene / (EX CH<sub>2</sub>)

MPL: claim 3

ACCESSION NUMBER: 131:358262 MARPAT

TITLE: Electron-accepting compound and thermal recording medium with heat-sensitive color-forming layer containing it

INVENTOR(S): Hizatate, Shoji; Kubota, Seiko

PATENT ASSIGNEE(S): Mitsubishi Paper Mills, Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

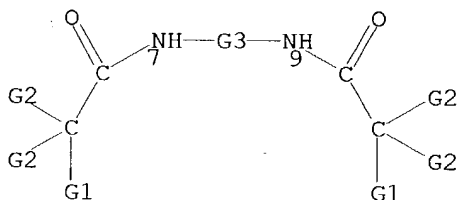
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11315060	A2	19991116	JP 1999-31820	19990209
PRIORITY APPLN. INFO.:			JP 1998-38447	19980220

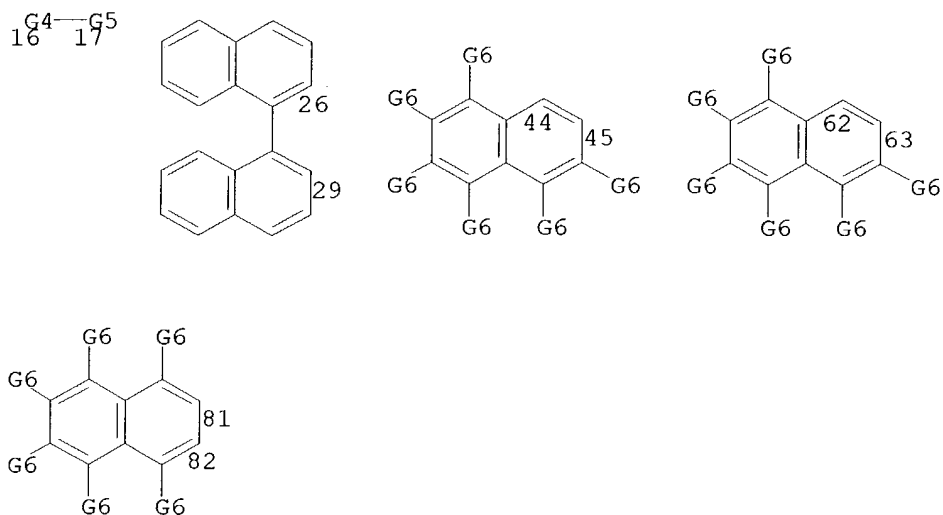
GI For diagram(s), see printed CA Issue.

AB The electron-accepting compound irreversibly loses electron accepting ability by thermal energy, and preferably has a structure having  $\geq 1$  functional group represented by  $\text{R}_1\text{N}(\text{CO})\text{pYR}_2$  ( $p = 1, 2$ ;  $\text{R}_1\text{-}2 = \text{H}$ , alkyl, alkenyl, aralkyl, aryl;  $\text{R}_2 \neq \text{H}$ ;  $\text{Y} = \text{NR}_3, \text{O}, \text{S}$ ;  $\text{R}_3 = \text{H}$ , aralkyl, alkenyl, aryl, alkyl) or a structure I ( $\text{A} = \text{alkyl}$ , alkenyl, aralkyl, aryl;  $\text{Q} = \text{atoms required for forming 5- or 6-membered ring}$ ). The recording medium containing  $\geq 1$  of the electron-accepting compound in a heat-sensitive color-forming layer is also claimed. Images with  $\geq 2$  of different colors can be formed without color mixing by using the recording medium having  $\geq 2$  color-forming layers.

L23 ANSWER 15 OF 31 MARPAT COPYRIGHT 2004 ACS on STN

**MSTR 1**G1 = OH / NH<sub>2</sub> / SHG2 = Ph / Bu-t / CH<sub>2</sub>CM<sub>3</sub> / SiMe<sub>3</sub> / cyclohexyl / Me

G3 = phenylene (SO G7) / 16-7 17-9 / 26-7 29-9 / 44-7 45-9 / 63-7 62-9 / 81-7 82-9 / alkylene (SO)



G4 = phenylene (SO) / Cb<EC (10) C, AR (1-), BD (ALL) N, RC (2), RS (2) E6> (SO)  
 G5 = phenylene (SO) / Cb<EC (10) C, AR (1-), BD (ALL) N, RC (2), RS (2) E6> (SO)  
 G6 = H / R  
 G7 = R / (**EX Me**)  
 DER: and metal complexes  
 MPL: claim 1  
 NTE: also incorporates claim 8 and broader disclosure

ACCESSION NUMBER: 129:156137 MARPAT  
 TITLE: High oxidation state metal oxo complexes of the PHAB ligand  
 INVENTOR(S): O'Halloran, Thomas V.; MacDonnell, Frederick M.; Fackler, Nathanael L. P.  
 PATENT ASSIGNEE(S): Northwestern University, USA  
 SOURCE: U.S., 17 pp., Cont. of U.S. Ser. No. 292,145, abandoned.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5786496	A	19980728	US 1996-746617	19961115
PRIORITY APPLN. INFO.:			US 1994-294145	19940822

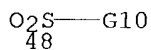
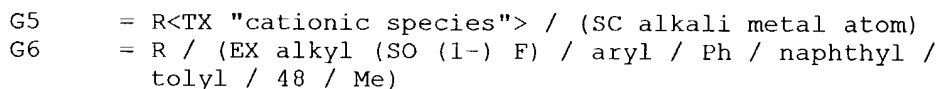
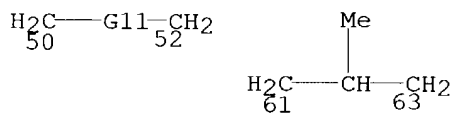
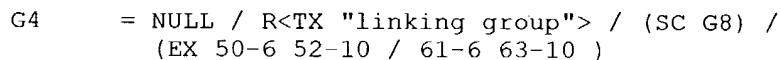
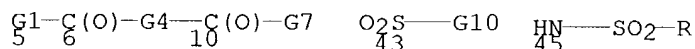
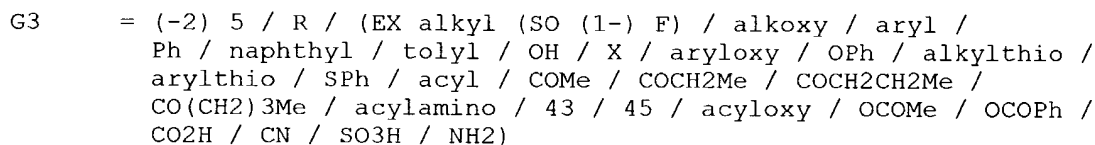
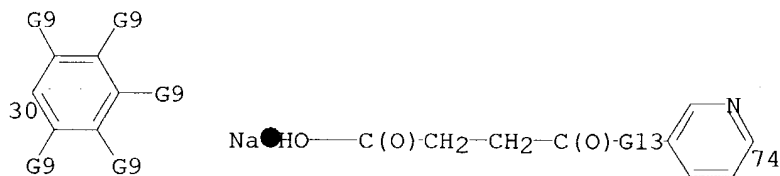
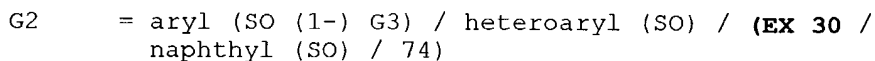
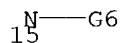
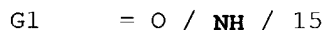
AB The present invention provides a new tetradentate bis-amido bis-alkoxo, 1,2-(bis-2,2-diphenyl-2-hydroxyethanamido)benzene (H4PHAB) and various derivs. thereof. This ligand is able to stabilize high valent metal oxo complexes by providing strong sigma donor ligands and through the use of steric bulk to prevent decomposition via formation of the  $\mu$ -oxo dimers. Disclosed are novel metal oxo structural chemical and oxidation reactions carried out with the novel metal oxo complexes. Thus,  $\text{PPh}_4[\text{MnO}(\text{PHAB})]$  was prepared by first preparing the Mn(III) dimer,  $\text{Li}_2[\text{Mn}(\text{PHAB})]_2$ , followed by oxidation of the dimer and metathesis with  $\text{Ph}_4\text{PCl}$ .

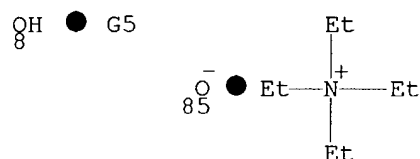
REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

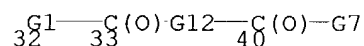
L23 ANSWER 16 OF 31 MARPAT COPYRIGHT 2004 ACS on STN

## MSTR 1

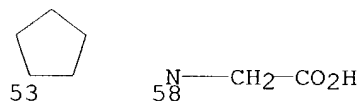




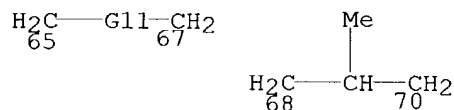
G8 = (1-11) CH2  
 G9 = **32** / H / alkoxy / aryl / Ph / naphthyl / tolyl /  
 OH / X / aryloxy / alkylthio / arylthio / **acyl** / COMe /  
 COCH2Me / COCH2CH2Me / CO(CH2)3Me / acylamino



G10 = R / (EX Me / Ph)  
 G11 = **s** / 53 / O / 58



G12 = NULL / R<TX "linking group"> / (SC G8) /  
 (**EX 65-33 67-40** / 68-33 70-40 )



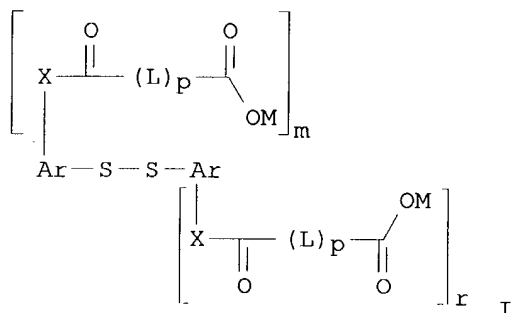
G13 = NH / O  
 MPL: claim 1

ACCESSION NUMBER: 128:302049 MARPAT  
 TITLE: Photographic paper with iodochloride emulsion and  
 disulfide compound  
 INVENTOR(S): Hendricks, Jess Byrd; Budz, Jerzy Antoni; Hahm, Paul  
 Timothy  
 PATENT ASSIGNEE(S): Eastman Kodak Co., USA  
 SOURCE: Eur. Pat. Appl., 29 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 836115	A1	19980415	EP 1997-202981	19970929
EP 836115	B1	20001129		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO

US 5830631	A	19981103	US 1996-729127	19961011
JP 10123658	A2	19980515	JP 1997-279123	19971013
PRIORITY APPLN. INFO.:			US 1996-729127	19961011
GI				

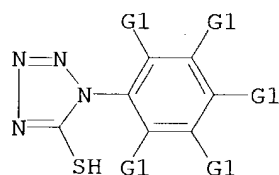


AB The invention relates to a photog. emulsion comprising silver iodochloride grains, said grains further comprising osmium and ruthenium, said grains chemical sensitized with gold in an amount of between 0.1 and 120 mg gold per silver mole and sulfur in an amount between 0.1 and 20 mg sulfur per silver mole and a disulfide compound represented by the formula I wherein X is independently O, NH, or NR, where R is a substituent; m and r are independently 0, 1, or 2; M is H or a cationic species; Ar is an aromatic group; and L is a linking group, where p is 0 or 1.

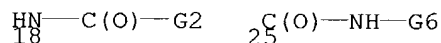
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 17 OF 31 MARPAT COPYRIGHT 2004 ACS on STN

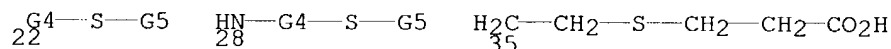
# MSTR 1

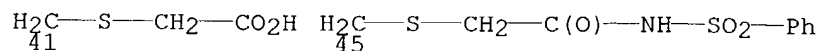


G1 = (3-4) H / 18 / 25 / (EX G3)

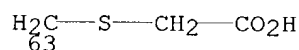
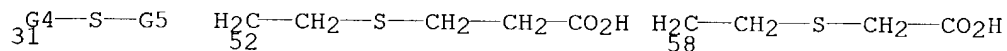


G2 = 22 / 28 / (EX 35 / 41 / 45)





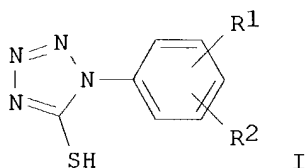
G3 = X / F / Cl / alkoxy / OCF<sub>3</sub> / CF<sub>3</sub> / OEt  
 G4 = alkylene<(-4)> (SO)  
 G5 = alkyl<(-4)> (SO)  
 G6 = 31 / alkylcarbonyl<(1-3)> (SR G7) / (EX 52 / 58 / 63)



G7 = alkylthio / arylthio  
 MPL: claim 7  
 NTE: substitution is restricted  
 NTE: incorporates broader disclosure for G1

ACCESSION NUMBER: 128:223791 MARPAT  
 TITLE: Photographic silver halide emulsion with improved sensitivity  
 INVENTOR(S): Brennecke, Detlef; Nietgen, Maria; Bergthaller, Peter  
 PATENT ASSIGNEE(S): Agfa-Gevaert A.-G., Germany  
 SOURCE: Ger. Offen., 8 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19635099	A1	19980305	DE 1996-19635099	19960830
PRIORITY APPLN. INFO.: GI			DE 1996-19635099	19960830

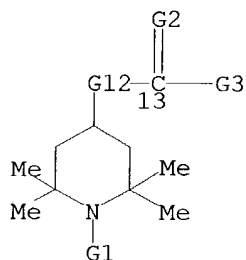


AB The title emulsion comprises  $\geq 50$  mol.% of AgCl and  $\geq 50$  % of projected areas having rod-shaped grains, wherein the grains has an aspect ratio of 1.5-1.52. The emulsion is manufactured in the presence of a compound represented by a general formula I (R<sub>1</sub> = m- or p-phenyl-substituted tetrazole, -NHCO(NH)mR<sub>3</sub>, -CONH(CO)nR<sub>4</sub>; R<sub>2</sub> = H, m- or p-phenyl-substituted

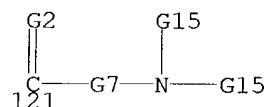
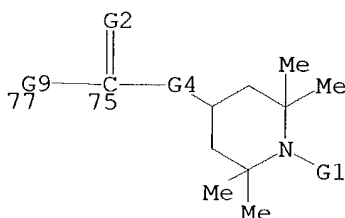
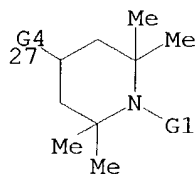
tetrazole, -NHCO(NH)mR<sub>3</sub>, -CONH(CO)nR<sub>4</sub>; R<sub>3</sub> = C2-5-alkyl; R<sub>4</sub> = -S-R<sub>5</sub>-substituted C1-3 alkyl; m, n = 0, 1; R<sub>5</sub> = alkyl, aryl).

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# MSTR 1



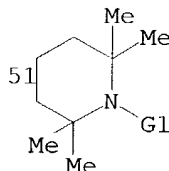
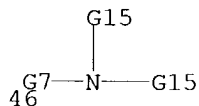
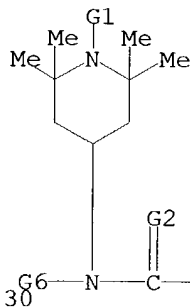
G1 = H / alkyl<(1-8)> / alkenyl<(3-8)> /  
alkyl<(1-3)> (SR Ph) / cycloalkyl<(5-8)>  
G2 = O / S  
G3 = alkyl<(1-8)> / NH<sub>2</sub> / 27 / 61 / 77 / 121 /  
Ph (SO G11)



G4 = NH / 28



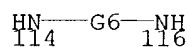
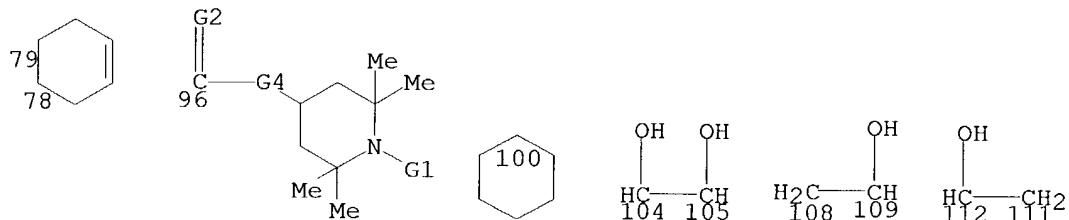
G5 = alkyl<(1-8)> / alkenyl<(3-8)> / cycloalkyl<(5-8)> /  
30 / 46 / 51



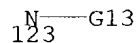
G6 = (2-12) CH<sub>2</sub>



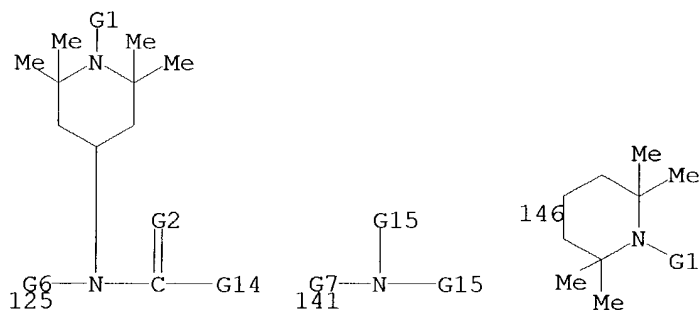
G7 = (2-6) CH<sub>2</sub>  
 G8 = alkyl<(1-4)> / cyclohexyl / CH<sub>2</sub>Ph  
 G9 = G10 / 79-13 78-75 / phenylene (SO (1) 96) /  
 cyclohexylene / 100 / CH=CH / 104-13 105-75 / 108-13 109-75 /  
 112-13 111-75 / 114-13 116-75



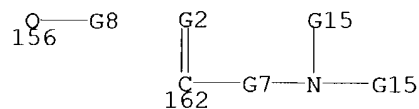
G10 = (0-8) CH<sub>2</sub>  
 G11 = OH / alkoxy<(1-4)> / alkyl<(1-4)>  
 G12 = NH / **123**



G13 = alkyl<(1-8)> / alkenyl<(3-8)> / cycloalkyl<(5-8)> /  
**125** / 141 / 146



G14 = alkyl<(1-8)> / NH<sub>2</sub> / R / 156 / **162** / Ph (SO G11) /  
 (EX Me / octyl)



G15 = alkyl<(1-4)>  
 MPL: claim 1

ACCESSION NUMBER: 128:23612 MARPAT

TITLE: Stabilizer combinations for halogen-containing polymers  
 INVENTOR(S): Zinke, Horst; Wehner, Wolfgang; Kuhn, Karl Josef; Borzatta, Valerio; Rytz, Gerhard  
 PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.  
 SOURCE: Brit. UK Pat. Appl., 39 pp.  
 CODEN: BAXXDU  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2311292	A1	19970924	GB 1997-5846	19970321
GB 2311292	B2	20001004		
DK 9700296	A	19970923	DK 1997-296	19970317
SE 9701011	A	19970923	SE 1997-1011	19970319
CA 2200536	AA	19970922	CA 1997-2200536	19970320
ZA 9702426	A	19970922	ZA 1997-2426	19970320
FR 2746405	A1	19970926	FR 1997-3402	19970320
DE 19711690	A1	19971106	DE 1997-19711690	19970320
NL 1005608	A1	19970923	NL 1997-1005608	19970321
NL 1005608	C2	20000522		
NO 9701335	A	19970923	NO 1997-1335	19970321
JP 10045983	A2	19980217	JP 1997-108012	19970321
BR 9701422	A	19981110	BR 1997-1422	19970321
BE 1012198	A5	20000704	BE 1997-251	19970321
GB 2345695	A1	20000719	GB 2000-9508	19970321
GB 2345695	B2	20001004		
GB 2345696	A1	20000719	GB 2000-9511	19970321
GB 2345696	B2	20000823		
ES 2147078	A1	20000816	ES 1997-618	19970321
ES 2147078	B1	20010401		
PRIORITY APPLN. INFO.:			CH 1996-751	19960322
			GB 1997-5846	19970321

AB The stabilizer combinations comprise (A) at least 1 organozinc compound with a Zn-O bond and/or a Zn-S bond and (B) at least 1 of the 4-aminopiperidine compds. At least some of the organozinc compound may be replaced by an inorg. zinc compound A B-type stabilizer such as N,N'-bis[2,2,6,6-tetramethylpiperidin-4-yl]oxamide could be prepared by the reaction between 4-amino-2,2,6,6-tetramethylpiperidine and di-Et oxalate.

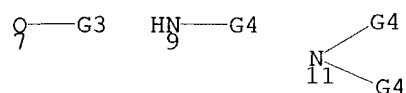
L23 ANSWER 19 OF 31 MARPAT COPYRIGHT 2004 ACS on STN

# MSTR 1

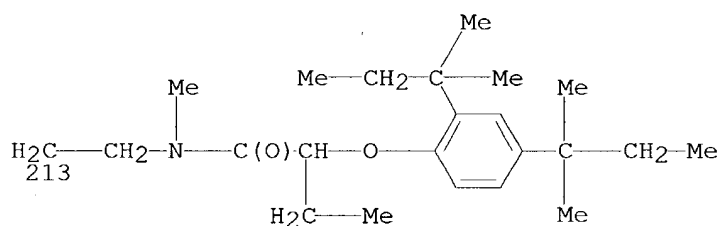
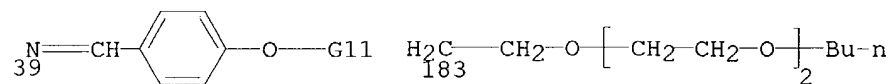
G1—NH—NH—C(O)·C(O)·G2

G1 = Ph (SO (1-) G6) / naphthyl

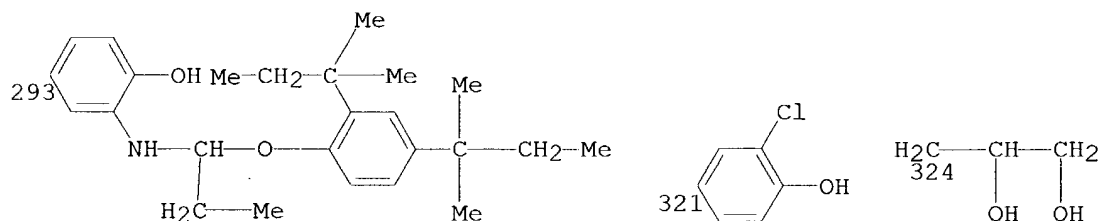
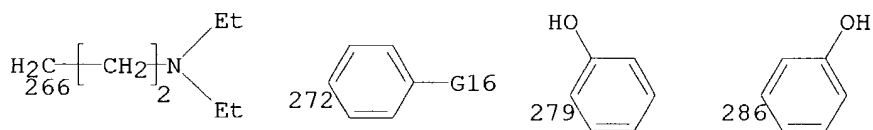
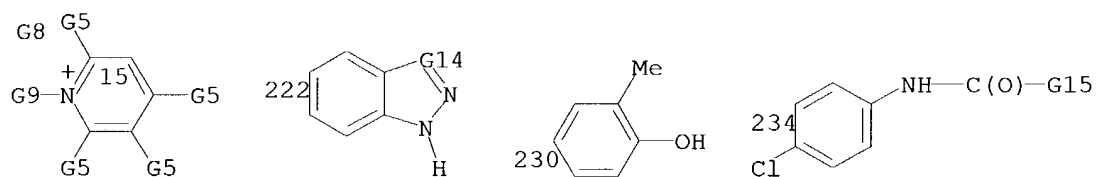
G2 = OH / 7 / NH2 / 9 / 11 / Hy<EC (1-) N, AN (1-) N> / (EX piperidino)

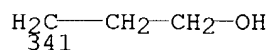
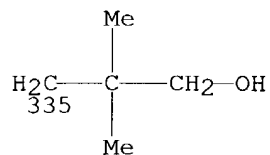
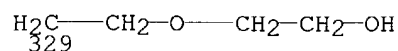


G3 = alkyl (SO) / alkenyl (SO) / Hy (SO) / aryl (SO) /  
(EX Et / 39 / 183 / Me / 213 / octadecyl)

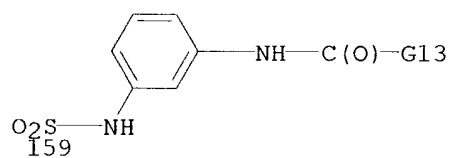
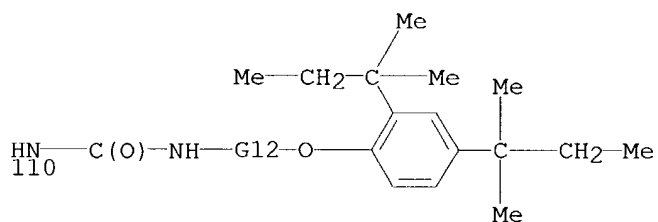
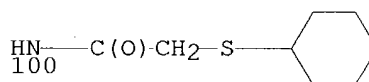
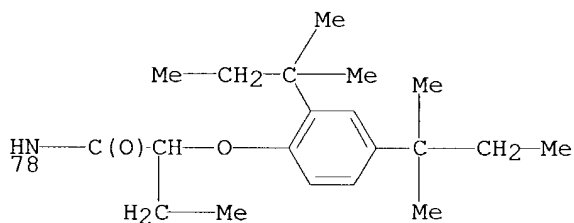
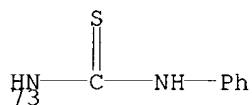
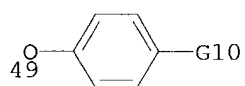
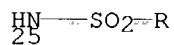


G4 = alkyl (SO) / aryl (SO) / Hy (SO) / 15 / (EX 272 /  
222 / 230 / 234 / 3-pyridyl / 266 / 279 / 286 / 293 / 321 /  
324 / 329 / 335 / 341)

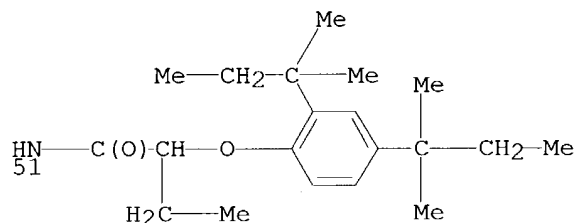




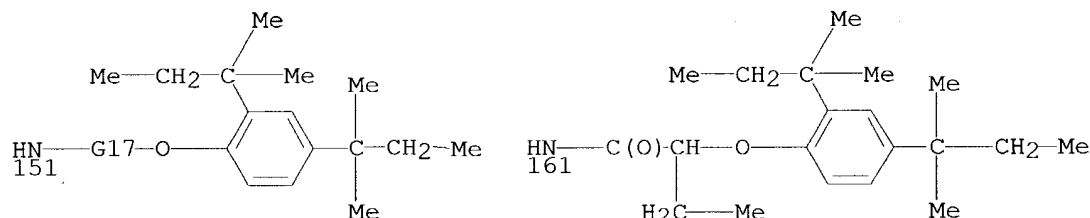
G5 = H / alkyl (SO) / aryl (SO) / alkoxy (SO) / (EX Me)  
 G6 = R / (EX alkyl / aryl / OH / X / alkoxy / alkylthio /  
 aryloxy / alkenyl / NH<sub>2</sub> / acylamino / 25 / 28 / NHCONH<sub>2</sub> /  
 Hy / **Me** / OMe / 49 / 73 / 78 / NHPh / **100** /  
 NHSO<sub>2</sub>Ph / 110 /  
 159)



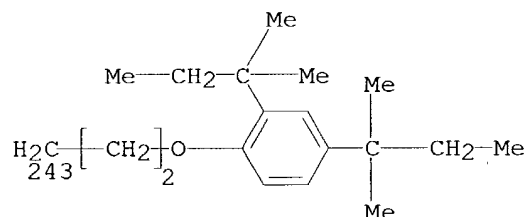
- G7 = alkylidene  
 G8 = R<TX "anion", CH (1) -> / (EX chloride / bromide / iodide / p-toluenesulfonate)  
 G9 = alkyl (SO) / aralkyl (SO) / alkenyl (SO) / (EX Me / Et)  
 G10 = Bu-t / 51



- G11 = Bu-n / hexyl  
 G12 = CH2CH2CH2 / CH2  
 G13 = 151 / 161



- G14 = CH / N  
 G15 = tridecyl / 243

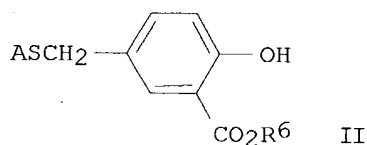
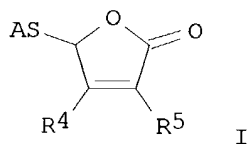


- G16 = Me / OH  
 G17 = CH2CH2CH2 / CH2  
 MPL: claim 1

ACCESSION NUMBER: 127:352946 MARPAT  
 TITLE: Silver halide photographic material containing hydrazine and antifogging agent precursor with stable handling possibility under safelight  
 INVENTOR(S): Asano, Masato; Okujima, Katsuo  
 PATENT ASSIGNEE(S): Mitsubishi Paper Mills, Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

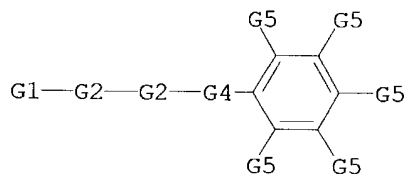
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09258357	A2	19971003	JP 1996-63079	19960319
PRIORITY APPLN. INFO.: GI			JP 1996-63079	19960319



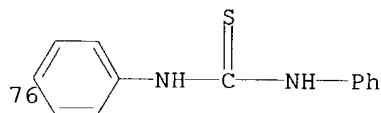
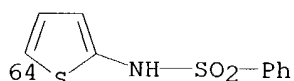
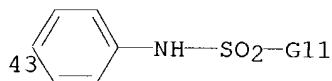
AB The material contains  $\text{ArNHNHC}(\text{:O})\text{C}(\text{:O})\text{R}$  [Ar = aryl; R = OR<sub>1</sub>, NR<sub>2</sub>R<sub>3</sub>; R<sub>1</sub> = H, (un)substituted alkyl, (un)substituted alkenyl, (un)substituted unsatd. heterocycle, (un)substituted aryl; R<sub>2</sub>-3 = H, (un)substituted alkyl, (un)substituted aryl, (un)substituted heterocycle, (un)substituted pyridinium; R<sub>2</sub> and R<sub>3</sub> may form a ring] and I or II (A = heterocyclic group of mercapto antifogging agent; R<sub>4</sub>-5 = halo, alkyl, aryl, aryloxy; R<sub>4</sub> and R<sub>5</sub> may form benzene ring; R<sub>6</sub> = H, alkyl) in a photosensitive Ag halide emulsion layer or a hydrophilic colloid layer. The material gave high-contrast images and shows stable handling possibility for a long time under safelight.

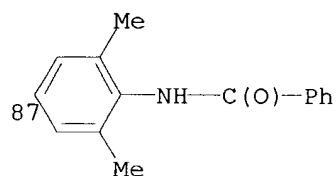
L23 ANSWER 20 OF 31 MARPAT COPYRIGHT 2004 ACS on STN

#### MSTR 1

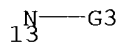


G1 = aryl (SO (1-) G6) / Hy (SO (1-) G6) / (EX 43 / 64 / 76 / 87)

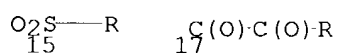




G2 = (1-) NH / 13

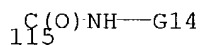
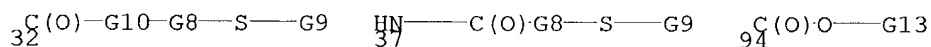


G3 = acyl / 15 / 17 / (EX COMe / SO2Et)

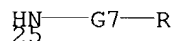


G4 = R<TX "linking group"> / (EX C(O) / SO2 / S(O))

G5 = (2-) H / R<TX "organic group containing three or more ethyleneoxy repeating units"> / (SC 32 / 37) / (EX 94 / 115)



G6 = R / (EX X / alkyl / alkenyl / alkynyl / alkoxy / aryl / aralkyl / aryloxy / OH / CO2H / acyl / NH2 / acylamino / 25 / CONH2 / SO2NH2 / alkoxy carbonyl)



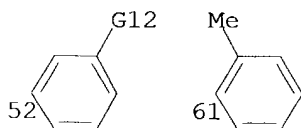
G7 = C(O) / SO2

G8 = (1-6) CH2

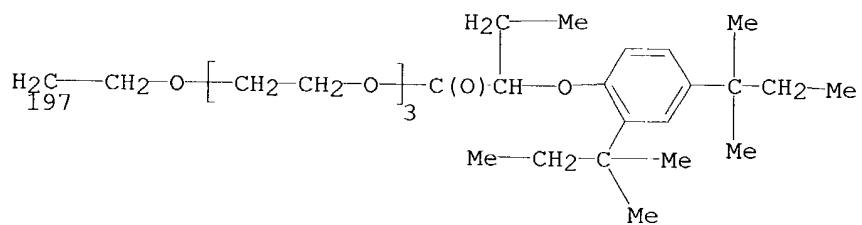
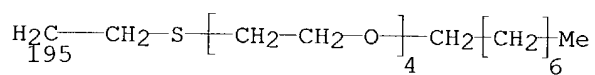
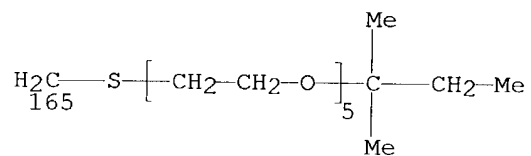
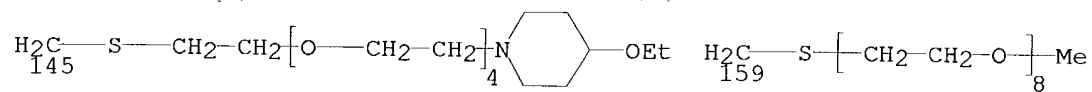
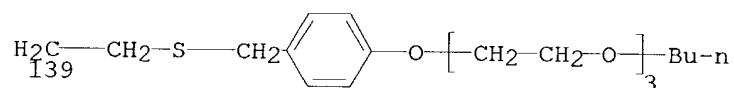
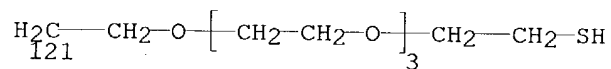
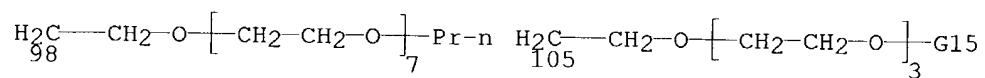
G9 = R<TX "organic group containing three or more ethyleneoxy repeating units">

G10 = O / NH

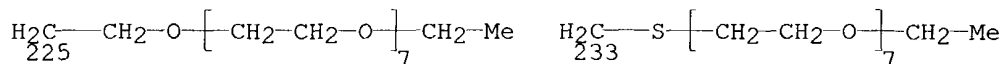
G11 = Ph / 52 / 61 / 2-thienyl



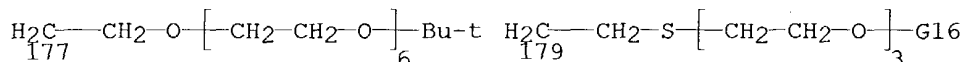
G12 = NHCOPh / OMe

G13 = 98 / 105 / 121 / 139 / 145 / 159 / 165 / 195 / 197 /  
225 / 233





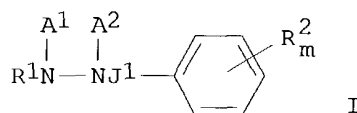
G14 = 177 / 179



G15 = pentyl / 2-thienyl  
 G16 = CH<sub>2</sub>Ph / C(Me)<sub>2</sub>CH<sub>2</sub>Me  
 MPL: claim 1

ACCESSION NUMBER: 126:82142 MARPAT  
 TITLE: Silver halide photographic material and processing thereof  
 INVENTOR(S): Sudo, Susumu; Komamura, Tawara; Ikeuchi, Satoru; Kato, Katsunori  
 PATENT ASSIGNEE(S): Konishiroku Photo Ind, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 19 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08272022	A2	19961018	JP 1995-71573	19950329
PRIORITY APPLN. INFO.: GI			JP 1995-71573	19950329

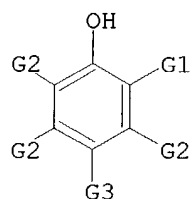


AB The title material contains  $\geq 1$  hydrazine compound I [R<sub>1</sub> = (substituted) aromatic group or heterocycle; A<sub>1</sub> = A<sub>2</sub> = H or when 1 of them is H, the other is acyl, sulfonyl, or oxalyl [sic] group; J<sub>1</sub> = divalent linking group; R<sub>2</sub> = organic group having  $\geq 3$  ethyleneoxy repeating units; m = 1-3]. The material is processed with a developing solution of pH  $\leq 11.0$ . The material shows high contrast even when processed with developing solns. of pH  $< 11$  and provides high quality images with low fog.

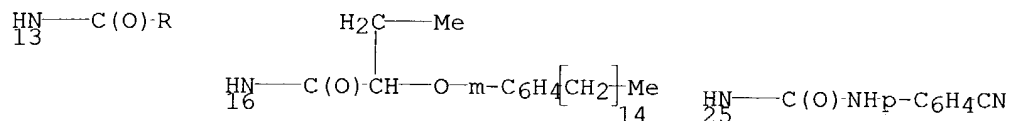
L23 ANSWER 21 OF 31 MARPAT COPYRIGHT 2004 ACS on STN

MSTR 2

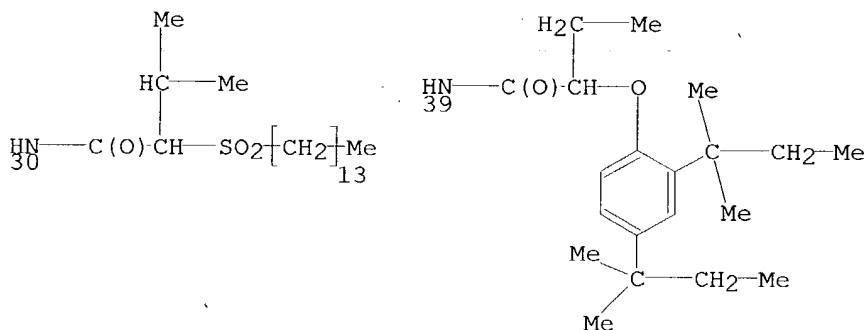
30f3



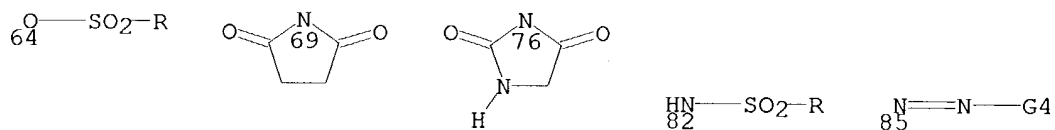
G1 = R / (SC CONH2 / NHCONH2 / 13 / 16 / 25)



G2 = R / (2) H / (SC Cl / Et / 30 / 39)



G3 = H / R<TX "coupling-off group"> / (SC Cl) / (EX 64 / alkoxy / aryloxy / 69 / acyloxy / acyl / Hy<EC (1-) N> / 76 / 82 / 85 / tetrazolyl (SR SH) / benzothiazolyl / alkylthio / OPO3H2)

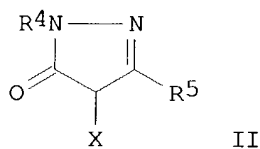
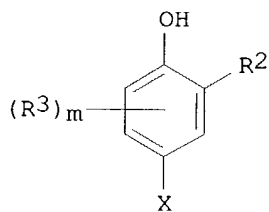


G4 = aryl  
MPL: claim 1

ACCESSION NUMBER: 124:302396 MARPAT  
TITLE: Chromogenic black-and-white motion picture film  
INVENTOR(S): Barber, Gary N.; Greco, Patricia R.; Bogdanowicz, Mitchell J.; Kelly, Elizabeth L.  
PATENT ASSIGNEE(S): Eastman Kodak Company, USA  
SOURCE: U.S., 40 pp.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

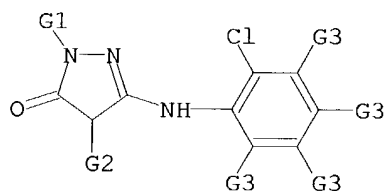
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5491053	A	19960213	US 1994-363461	19941223
US 5536629	A	19960716	US 1995-551084	19951031
JP 08234377	A2	19960913	JP 1995-335007	19951222
PRIORITY APPLN. INFO.:			US 1994-363461	19941223
GI				



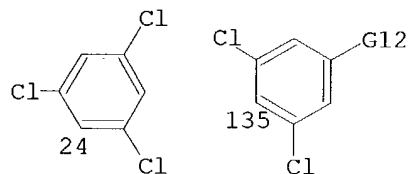
AB The invention relates to a photog. element comprising a yellow coupler represented by formula  $R_1COCH(X)CONHY$  ( $R_1$  = a substituent;  $X$  = H or a coupling-off group;  $Y$  = aryl or a heterocyclic group), a cyan coupler represented by formula I ( $R_2$ ,  $R_3$  = a substituent;  $X$  = H or a coupling-off group;  $m = 1-3$ ), and a magenta coupler represented by formula II ( $R_4$ ,  $R_5$  = a substituent;  $X$  = H or a coupling-off group) to provide a relative fixed upper scale contrast between 1.1 and 1.8.

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### MSTR 3

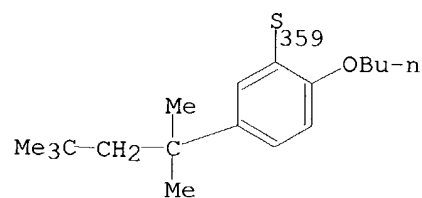
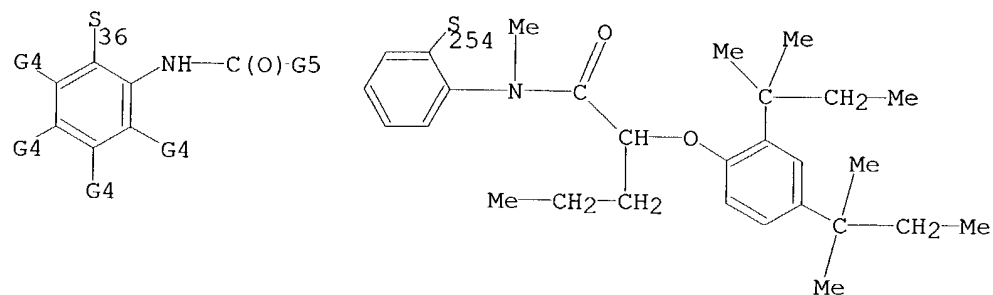


G1 = aryl (SO) / (SC 24) / (EX 135)

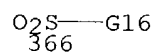
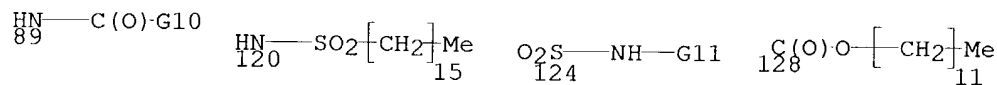


G2 = R<TX "leaving group"> / (SC alkylthio / arylthio /

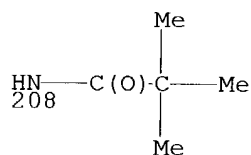
36) / (EX 254 / 359)



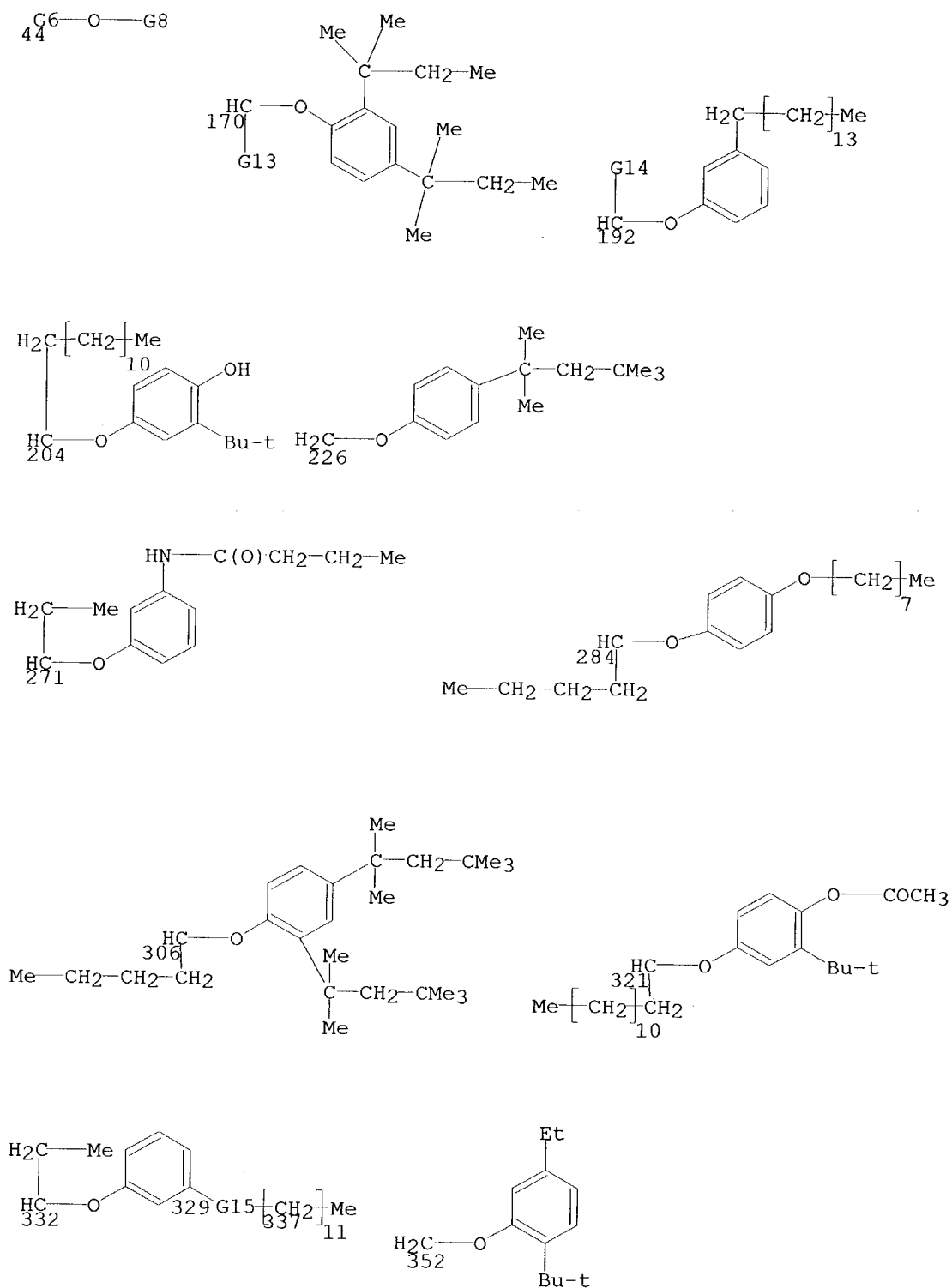
G3 = H / R<TX "ballast group"> / (SC 366 / SO2NH2) /  
(EX 89 / Cl / 120 / 124 / 128)



G4 = H / R / (EX 208 / CO2Bu-n / OMe)

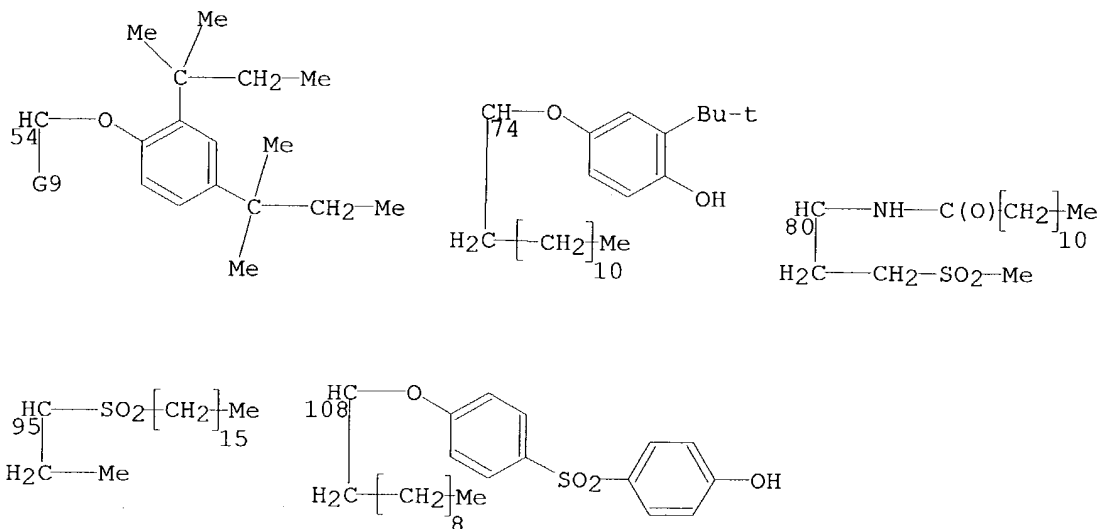


G5 = R<TX "ballast group"> / 44 / (EX 170 / 192 / 204 /  
226 / 271 / 284 / 306 / 321 / 332 / 352)

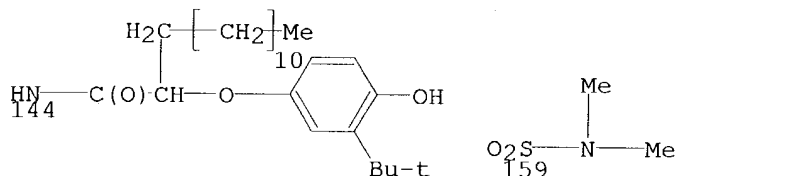


G6 = CH<sub>2</sub> / alkylene<DC (0) M3> (SO (-1) G7)  
 G7 = aryl / Hy

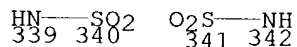
G8 = Ph (SO alkyl)  
 G9 = Et / Bu-n  
 G10 = tridecyl / 54 / 74 / 80 / **95** / 108



G11 = octadecyl / dodecyl  
 G12 = 144 / 159



G13 = Et / Bu-n / hexyl / octyl / dodecyl / H  
 G14 = Et / H  
 G15 = 339-329 340-337 / 341-329 342-337

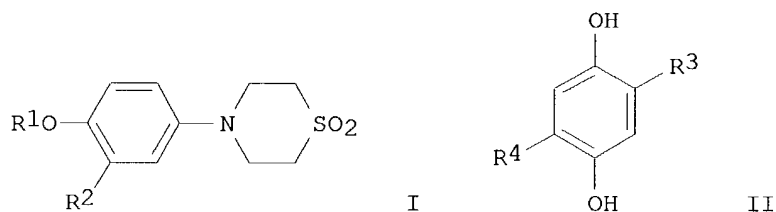


G16 = R / (EX dodecyl / Me)  
 MPL: claim 2

ACCESSION NUMBER: 124:215906 MARPAT  
 TITLE: Photographic elements containing 2-equivalent pyrazolone magenta dye forming couplers and fade reducing compounds  
 INVENTOR(S): Jain, Rakesh; Schleigh, William R.; Stewart, Robert C.  
 PATENT ASSIGNEE(S): Eastman Kodak Co., USA  
 SOURCE: U.S., 14 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

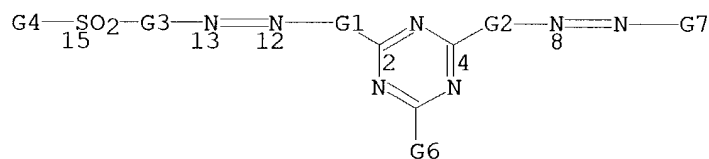
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5484696	A	19960116	US 1994-362635	19941222
EP 718685	A1	19960626	EP 1995-203526	19951216
R: BE, DE, FR, GB, NL				
JP 08220711	A2	19960830	JP 1995-333577	19951221
PRIORITY APPLN. INFO.:			US 1994-362635	19941222
GI				



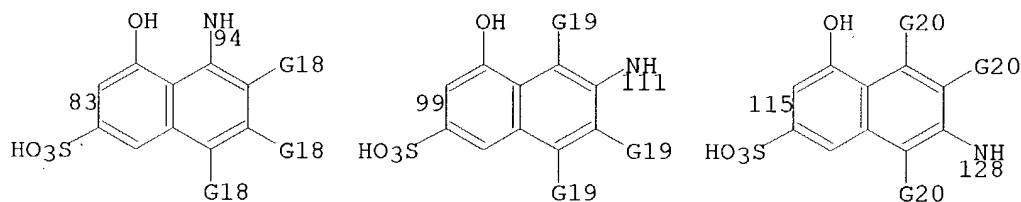
AB A silver halide photog. element has a light sensitive Ag halide-containing layer also containing a 2-equiv pyrazolone magenta coupler, a compound of formula I, and a hydroquinone compound II wherein: R1 is an alkyl group; and R2, R3 and R4 are independently an alkyl group or H. The presence of the compound I when used with the two-equivalent pyrazolone magenta coupler and compound II, can result in low magenta dye fade, increased wavelength of maximum absorption of the magenta dye and increased magenta dye bandwidth.

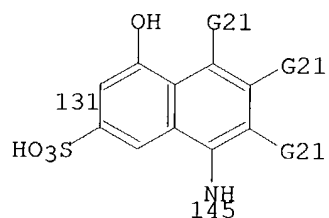
L23 ANSWER 23 OF 31 MARPAT COPYRIGHT 2004 ACS on STN

## MSTR 1

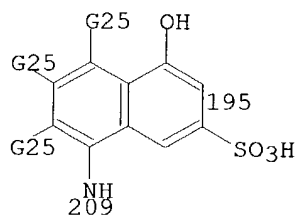
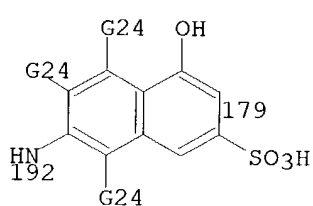
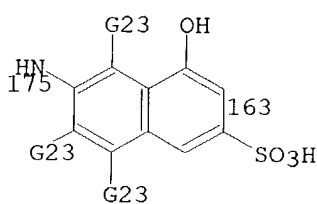
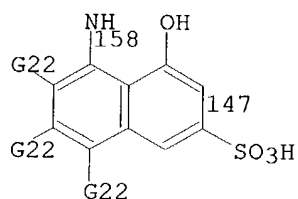


G1 = R<TX "coupling component"> / (SC 94-2 83-12 / 111-2 99-12 / 128-2 115-12 / 145-2 131-12 )

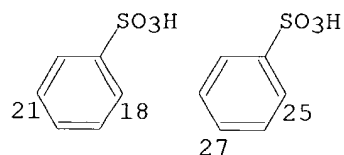




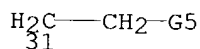
G2 = R<TX "coupling component"> / (SC 158-4 147-8 / 175-4 163-8 / 192-4 179-8 / 209-4 195-8 )



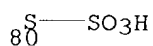
G3 = 18-13 21-15 / 25-13 27-15



G4 = CH=CH2 / 31

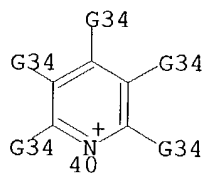


G5 = R<TX "cleavable group"> / (SC OSO3H / OPO3H2 / OCOMe / Cl / OSO2Me / 80)

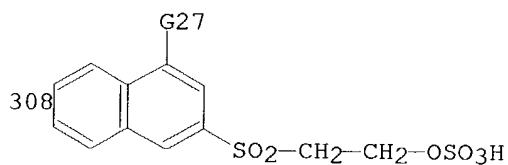
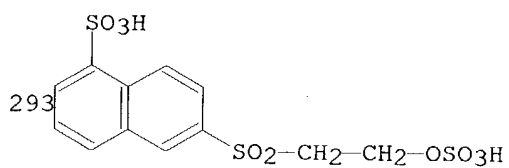
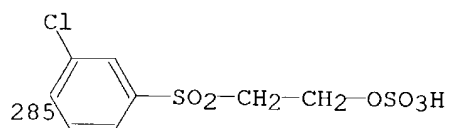
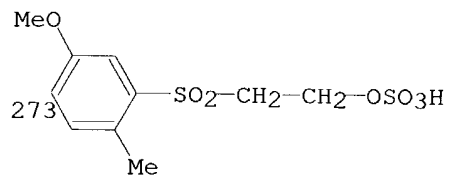
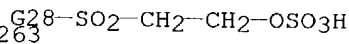
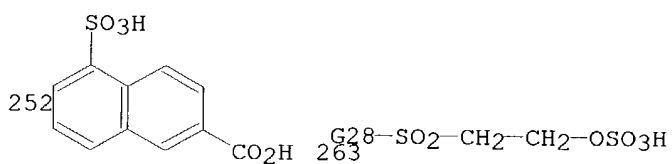
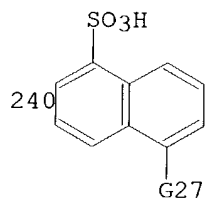
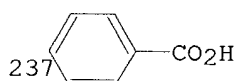
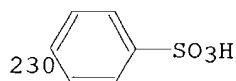
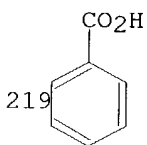
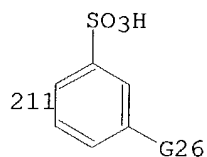


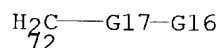
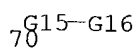
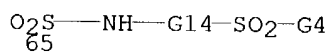
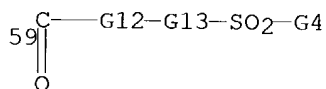
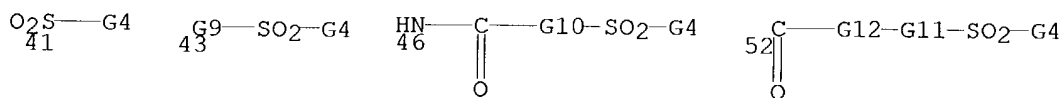
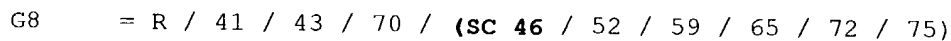
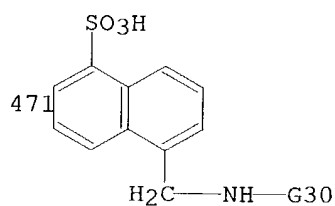
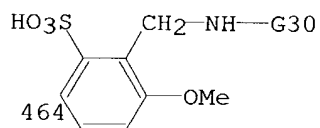
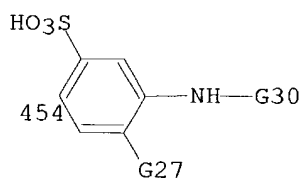
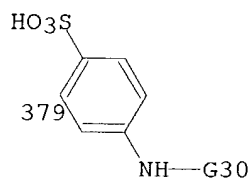
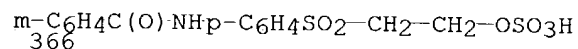
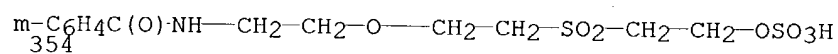
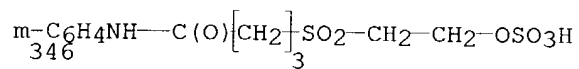
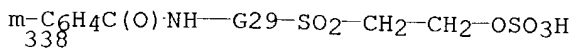
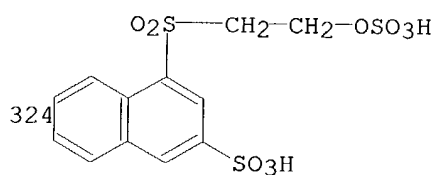
G6 = X / F / Cl / 40

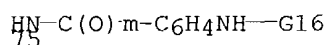




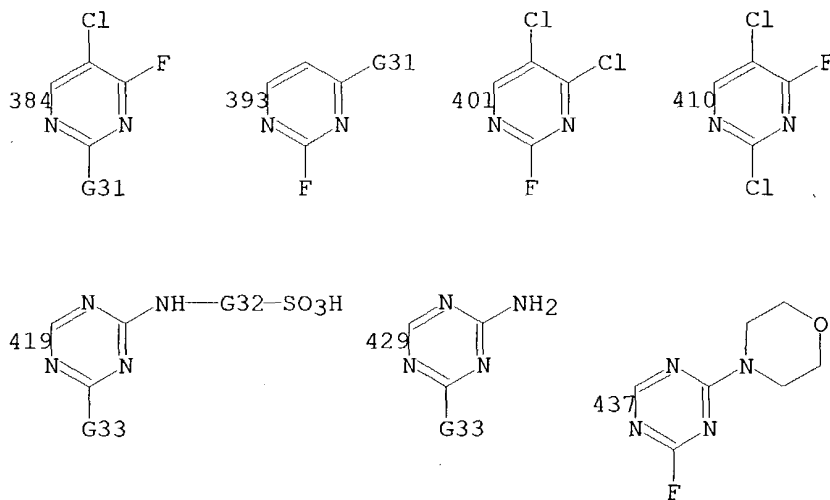
G7 = R<TX "diazo component"> / (SC Ph (SO G8) /  
 naphthyl (SO) / Cb<EC (10) C, AR (1-), BD (ALL) N, RC (2),  
 RS (2) E6> (SO G8) / 211 / 219 / 230 / 237 / 240 / 252 /  
 263 / 273 / 285 / 293 / 308 / 324 / 338 / 346 / 354 / 366 /  
 379 / 454 / 464 / 471)







- G9 = R<TX "divalent bridging group"> / (SC NH / NMe / NEt / CH2)  
 G10 = (1-4) CH2  
 G11 = (2-4) CH2  
 G12 = NH / NMe / NEt  
 G13 = phenylene  
 G14 = phenylene  
 G15 = R<TX "divalent bridging group"> / (SC NH / NMe / NEt)  
 G16 = R<TX "fiber-reactive group">  
 G17 = NH / NMe  
 G18 = H / (-1) SO3H  
 G19 = H / (-1) SO3H  
 G20 = H / (-1) SO3H  
 G21 = H / (-1) SO3H  
 G22 = H / (-1) SO3H  
 G23 = H / (-1) SO3H  
 G24 = H / (-1) SO3H  
 G25 = H / (-1) SO3H  
 G26 = H / OMe / Me  
 G27 = H / SO3H  
 G28 = m-C6H4 / p-C6H4  
 G29 = (2-4) CH2  
 G30 = 384 / 393 / 401 / 410 / 419 / 429 / 437



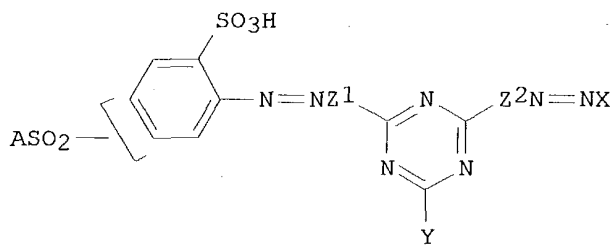
- G31 = F / H  
 G32 = phenylene  
 G33 = Cl / F  
 G34 = H / R  
 MPL: claim 1  
 NTE: substitution is restricted

ACCESSION NUMBER: 124:148714 MARPAT  
 TITLE: Reactive disazo dyes, their preparation and their use.

INVENTOR(S): Jaeger, Horst; Wolff, Joachim  
 PATENT ASSIGNEE(S): Bayer A.-G., Germany  
 SOURCE: Eur. Pat. Appl., 29 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 685532	A1	19951206	EP 1995-107602	19950518
R: CH, DE, FR, GB, LI				
DE 4418992	A1	19951207	DE 1994-4418992	19940531
US 5625042	A	19970429	US 1995-449194	19950524
JP 07331100	A2	19951219	JP 1995-149736	19950525
CA 2150303	AA	19951201	CA 1995-2150303	19950526
PRIORITY APPLN. INFO.:			DE 1994-4418992	19940531

GI



I

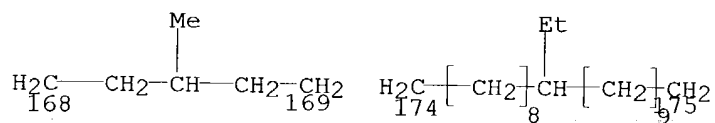
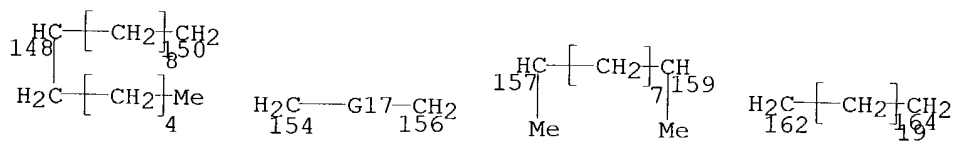
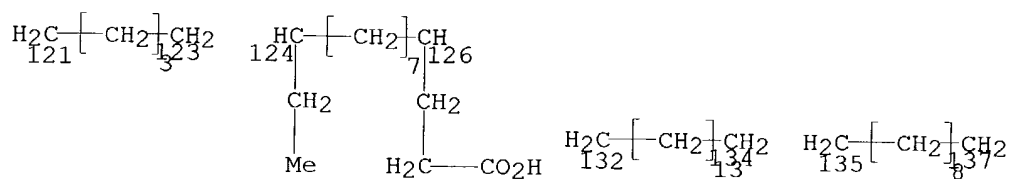
AB The asym. dyes (I; A = vinyl or group convertible thereto; X = diazo component; Y = halogen, pyridinium group; Z1, Z2 = coupling component) are obtained by sequential coupling using different diazo components. I provide fast dyeings and prints on cellulosics and polyamide. Thus, H acid was condensed with cyanuric chloride and to give a coupling component which was then coupled first with 4-( $\beta$ -sulfatoethylsulfonyl)aniline and then with 4-( $\beta$ -sulfatoethylsulfonyl)-2-sulfoaniline to provide a disazo dye ( $\lambda_{\max}$  520). The dye gave clear reddish yellow shades to cotton.

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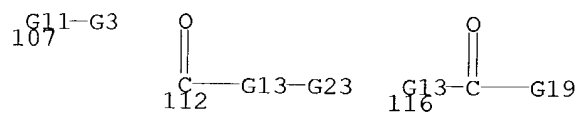
MSTR 2B

G2-G1-G2  
 1 3

G1 = Ak<EC (3-100) C, BD (0-) D (0-) T> (SO (1-) G5) /  
 (EX 121-1 123-3 / 124-1 126-3 / 132-1 134-3 / 135-1 137-3 /  
 148-1 150-3 / 154-1 156-3 / 157-1 159-3 / 162-1 164-3 /  
 168-1 169-3 / 174-1 175-3 )



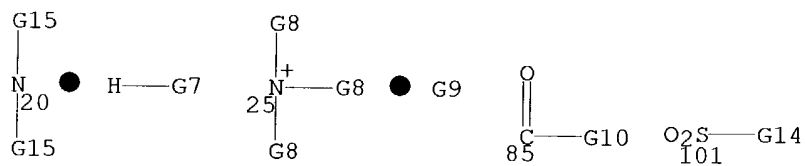
G2 = 107 / (EX 112 / **116**)



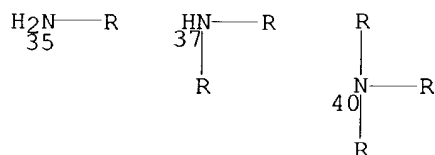
G3 = Ak<EC (4-100) C, BD (0-) D (0-) T> (SO (1-) G5) /  
Cb<EC (4-100) C, BD (0-) D> (SO (1-) G5)

G4 = H / alkyl<(1-8)> / alkenyl<(1-8)> / alkynyl<(1-8)>

G5 = OH / 85 / 20 / 25 / 101



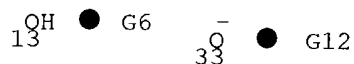
G6 = R<TX "cation"> / (EX alkali metal atom /  
alkaline earth metal atom / NH3 / 35 / 37 / 40)



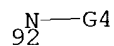
G7 = R / (EX X)

G8 = alkyl<(1-8)> / alkenyl<(1-8)> / alkynyl<(1-8)>

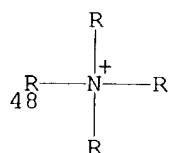
G9 = R<TX "anion"> / (EX halogen anion)  
 G10 = OH / 13 / NH2 / 33



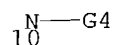
G11 = R<TX "divalent linking group"> / O / S / 92 / S(O) / SO2



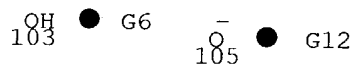
G12 = R<TX "cation"> / (EX 48)



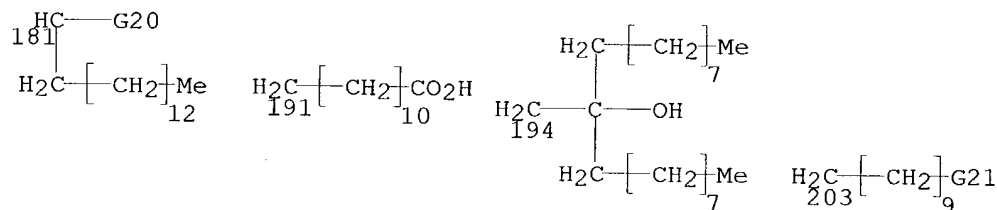
G13 = O / 10

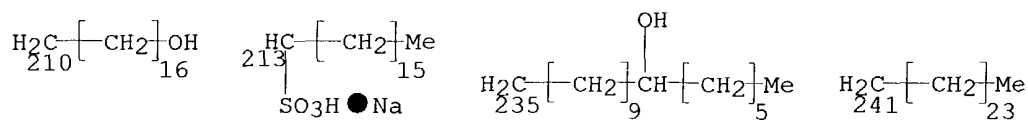


G14 = OH / 103 / 105

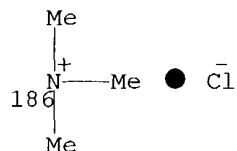


G15 = H / alkyl<(1-8)> / alkenyl<(1-8)> / alkynyl<(1-8)>  
 G17 = G18 / CHOH  
 G18 = **(5-6) CH2**  
 G19 = Ak<EC (4-100) C, BD (0-) D (0-) T> (SO (1-) G5) /  
 Cb<EC (4-100) C, BD (0-) D> (SO (1-) G5) / (EX 181 / decyl /  
 191 / 194 / 203 / pentadecyl / octyl / 210 / **213** /  
 heptadecyl / 235 / 241)

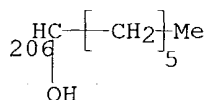




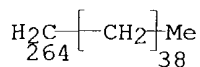
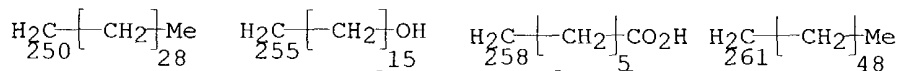
G20 = OH / 186



G21 = CONH2 / 206



G23 = Ak<EC (4-100) C, BD (0-) D (0-) T> (SO (1-) G5) /  
 Cb<EC (4-100) C, BD (0-) D> (SO (1-) G5) / octyl / decyl /  
 250 / 255 / 258 / 261 / 264



MPL: claim 11  
 NTE: substitution is restricted

ACCESSION NUMBER: 124:71449 MARPAT  
 TITLE: Silver halide photographic material comprising  
 emulsion layer and backing layer provided on support  
 INVENTOR(S): Miyamoto, Hajime  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Eur. Pat. Appl., 44 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 668534	A2	19950823	EP 1994-120520	19941223

EP 668534 A3 19970702  
 EP 668534 B1 19991103

R: DE, FR, GB, IT, NL

JP 07181623 A2 19950721

JP 3123872 B2 20010115

JP 07209799 A2 19950811

US 5547820 A 19960820

JP 1993-345871 19931224

JP 1994-7197 19940126

US 1994-362925 19941223

JP 1993-345871 19931224

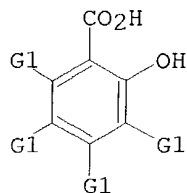
JP 1994-7197 19940126

PRIORITY APPLN. INFO.:

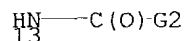
AB A silver halide photog. material comprises a silver halide emulsion layer and a surface backing layer provided a support. The surface backing layer contains a aliphatic hydrocarbon compound represented by Cn1Hm1-X1-Cn2Hm2 or Cn3Hm3-X2-Cn4Hm4-X3-Cn5Hm5 (X1-3 = CO, O, S, NR1, SO, SO2; R1 = H, C1-8 aliphatic; n1, n2, n3, n5 = 4-100; mm, m2, m3, m5 = 9-201; n4 = 3-100; m4 = 6-200; n1 + n2 = 25-120; n3 + n4 + n5 = 30-150; at least one H atom of the groups Cn1Hm1-, -Cn2Hm2, Cn3Hm3-, -Cn4Hm4- and -Cn5Hm5 is substituted with a polar group selected from -OH, -COOM1, -NH2, -N+R2R3R4R5A-, CONH2 and -SO3M2; R2-5 = H, C1-8 aliphatic; M1, M2 = cation; A = anion).

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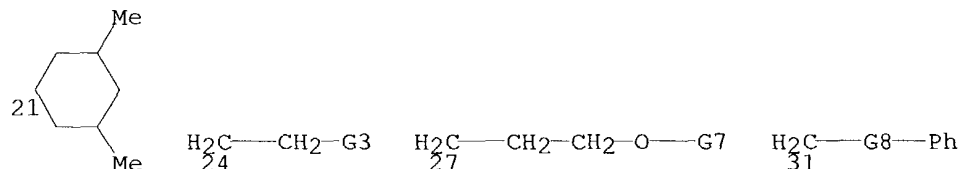
MSTR 1



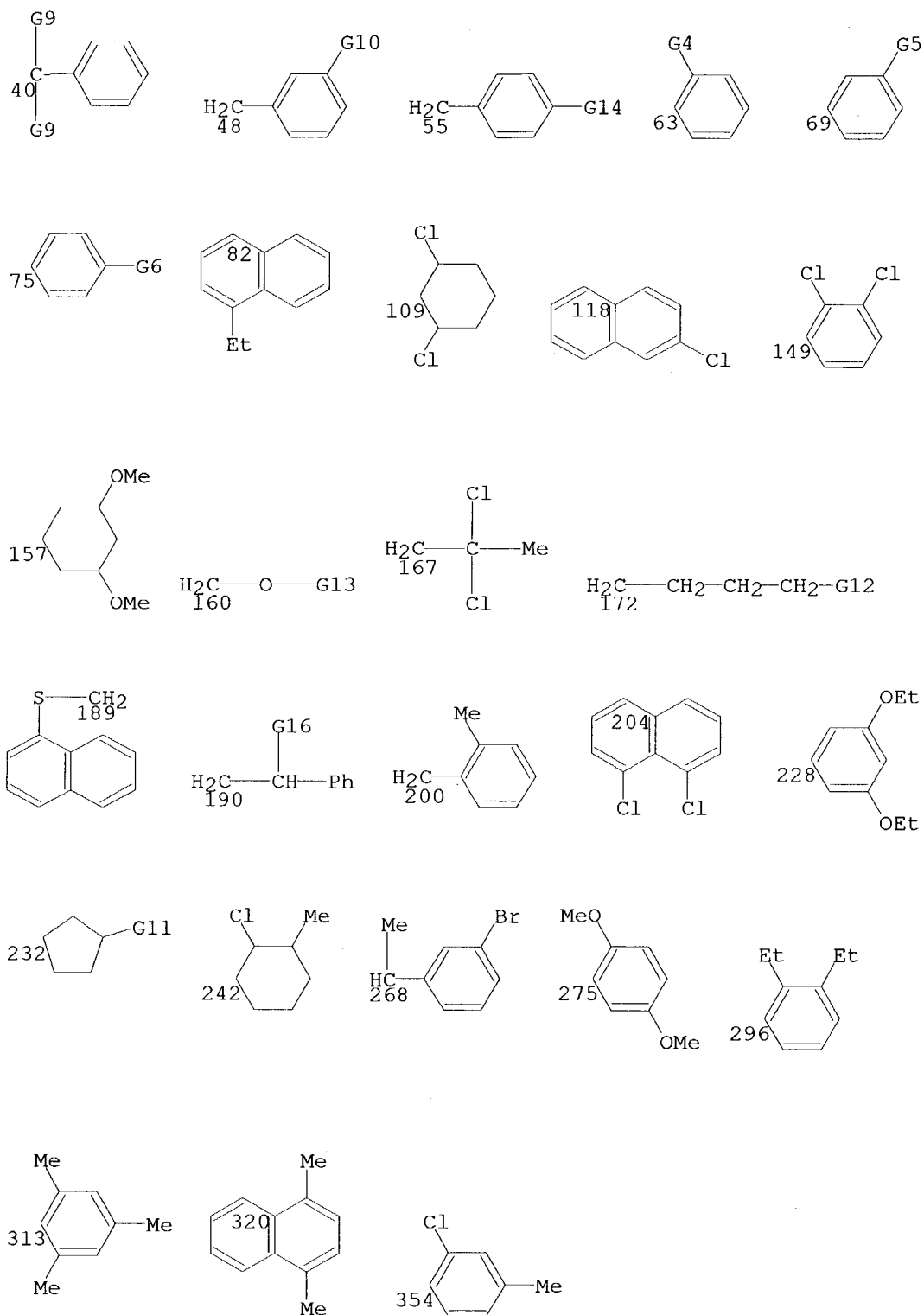
G1 = (1) 13 / (1-) H / alkyl / alkoxy / X /  
 (EX cycloalkyl<(5-14)> / Me / Et / OMe / OPr-i / Bu-t /  
 OPr-n / OPh)



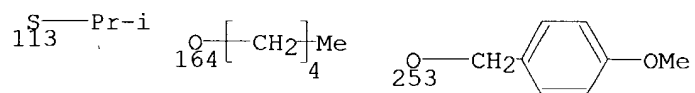
G2 = alkyl (SO) / aralkyl (SO) / aryl (SO) /  
 (EX cycloalkyl (SO) / Ph / naphthyl / heteroaryl (SO) / Me /  
 Pr-n / nonyl / octadecyl / cyclohexyl / 21 / 24 / 27 / 31 /  
 40 / 48 / 55 / 63 / 69 / 75 / 82 / Et / Pr-i / Bu-t / hexyl /  
 232 / 109 / 118 / 149 / Bu-n / dodecyl / 157 / 160 / 167 /  
 172 / 189 / 190 / 200 / 204 / 228 / CH2CH2CHMe2 / hexadecyl /  
 242 / 268 / 275 / 296 / 313 / 320 / 354)



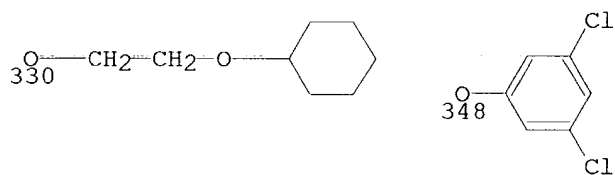
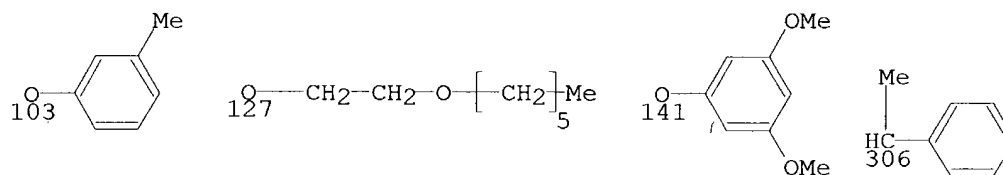




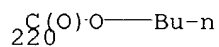
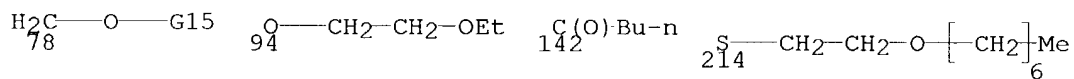
G3 = OMe / OCH<sub>2</sub>Ph / SEt / OPr-n / SCH<sub>2</sub>Ph / 113 / 164 / 253



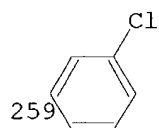
G4 = Et / Ph / COMe / Pr-i / cyclohexyl / CO<sub>2</sub>Et / OPh / CO<sub>2</sub>CH<sub>2</sub>Ph  
 G5 = cyclohexyl / 103 / SEt / 127 / 141 / Bu-t / 306 / 330 / 348



G6 = 78 / 94 / CO<sub>2</sub>Me / 142 / 214 / OCOMe / 220 / CPh



G7 = Bu-n / pentyl / 259 / Ph

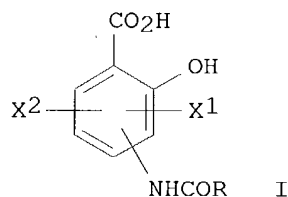


G8 = s / O  
 G9 = H / Me  
 G10 = Cl / OPr-i  
 G11 = H / Et  
 G12 = SEt / OBU-n  
 G13 = hexyl / pentyl  
 G14 = OH / OMe  
 G15 = Et / Bu-n  
 G16 = H / Me

DER: as Zinc salt hydrates  
MPL: claim 1

ACCESSION NUMBER: 123:127700 MARPAT  
TITLE: Salicylic acid derivative zinc salt hydrate, its manufacture, and thermal recording material using it as color developer  
INVENTOR(S): Motojima, Toshihiro; Ootsuji, Atsuo; Kida, Jotaro; Nakatsuka, Masakatsu  
PATENT ASSIGNEE(S): Mitsui Toatsu Chemicals, Japan; Yamamoto Chemicals Inc  
SOURCE: Jpn. Kokai Tokkyo Koho, 20 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

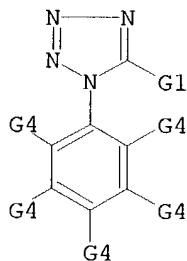
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07089918	A2	19950404	JP 1993-232879	19930920
PRIORITY APPLN. INFO.: GI			JP 1993-232879	19930920



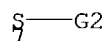
AB The claimed substance is a Zn salt hydrate of a salicylic acid derivative I (X1-2 = H, alkyl, alkoxy, halo; R = alkyl, aralkyl, aryl). The Zn salt hydrate of I is manufactured by heating its anhydride in the presence of H<sub>2</sub>O. The recording material containing an electron-donating coloring compound and an electron-accepting compound contains  $\geq 1$  Zn salt hydrate of I. The material showed good humidity and oil resistances.

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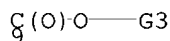
MSTR 1



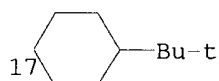
G1 = SH / 7



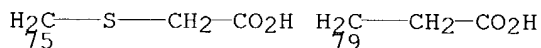
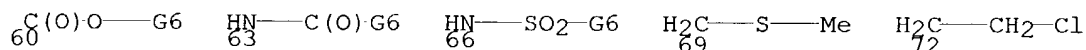
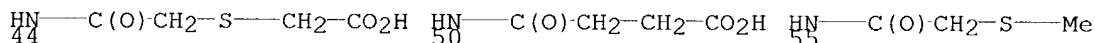
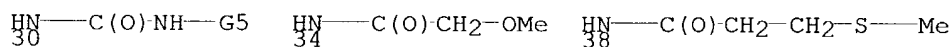
G2 = R<TX "alkali cleavable group"> / (EX 9)



G3 = R / alkyl / cycloalkyl / aryl / Et / Ph / Pr-i /  
Bu-i / Bu-n / cyclohexyl / 17

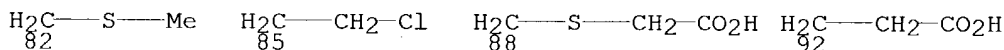


G4 = (2-) H / X / OH / alkyl<(1-4)> (SO) /  
alkoxy<(1-4)> / **60** / CONH2 / alkylaminocarbonyl<(1-4)> /  
dialkylaminocarbonyl<(1-4)> / SO2NH2 /  
alkylaminosulfonyl<(1-4)> / dialkylaminosulfonyl<(1-4)> /  
**63** / 66 / 30 / (EX CH2OMe / 69 / 72 / 75 / 79 / NHCOMe / Me /  
Cl / 34 / CO2Et / 38 / 44 / 50 / 55)



G5 = alkyl<(1-4)> / (EX Me)

G6 = alkyl<(1-4)> (SO) / (EX CH2OMe / **82** / 85 / 88 / 92)



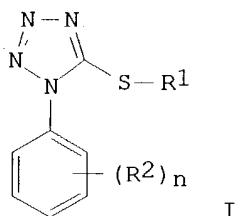
MPL: claim 1

ACCESSION NUMBER: 121:289500 MARPAT  
TITLE: Color photographic recording materials for producing  
colored images  
INVENTOR(S): Heinecke, Juergen; Maeder, Helmut; Nittel, Fritz;

PATENT ASSIGNEE(S): Oehlschlaeger, Hans; Voigt, Armin  
 SOURCE: Agfa-Gevaert AG, Germany  
 Ger. Offen., 55 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4310703	A1	19940303	DE 1993-4310703	19930401
US 5374505	A	19941220	US 1993-107350	19930816
PRIORITY APPLN. INFO.:			DE 1992-4228652	19920828
			DE 1993-4310703	19930401

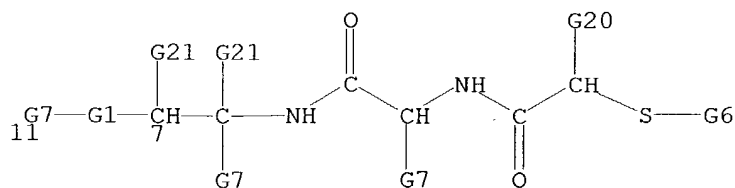
GI



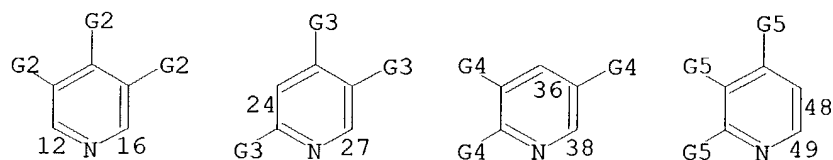
AB The title materials, which comprise a support on which are formed  $\geq 1$  blue-sensitive Ag halide emulsion layer with an associated yellow coupler,  $\geq 1$  green-sensitive Ag halide emulsion layer with an associated magenta coupler,  $\geq 1$  red-sensitive Ag halide emulsion layer with an associated cyan coupler, and addnl. non-light-sensitive layers are provided with a stabilizing compound described by the general formula I ( $R_1 = H$  or a group which can be cleaved under alkaline conditions;  $R_2 = H$ , a halogen,  $-OH$ , a C1-4 alkyl group, a C1-4 alkoxy group,  $-COOR_3$ ,  $-CONR_4R_5$ ,  $-SO_2NR_4R_5$ ,  $-NH-COR_3$ ,  $-NH-SO_2R_3$ , or  $-NH-CO-NHR_4$ ;  $R_3 =$  a C1-4 alkyl group;  $R_4, R_5 = H$  or a residue like  $R_3$ ; and  $n = 1, 2$ , or  $3$ ) in combination with 1-5 times its weight of a dispersing medium.

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# MSTR 1A

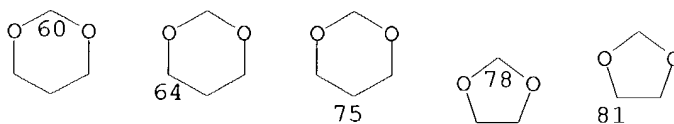


G1 = 16-7 12-11 / 27-7 24-11 / 38-7 36-11 / 49-7 48-11

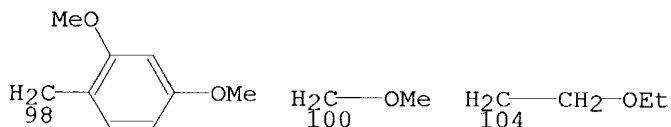


G2 = (2-) H / alkyl<(1-10)> (SO OH) / OH /  
 alkoxy<(1-10)> / alkyl<(1-10)> (SR alkoxy<(1-10)>) /  
 alkoxyacarbonyl<(1-10)> / CONH2  
 G3 = (2-) H / alkyl<(1-10)> (SO OH) / OH /  
 alkoxy<(1-10)> / alkyl<(1-10)> (SR alkoxy<(1-10)>) /  
 alkoxyacarbonyl<(1-10)> / CONH2  
 G4 = (2-) H / alkyl<(1-10)> (SO OH) / OH /  
 alkoxy<(1-10)> / alkyl<(1-10)> (SR alkoxy<(1-10)>) /  
 alkoxyacarbonyl<(1-10)> / CONH2  
 G5 = (2-) H / alkyl<(1-10)> (SO OH) / OH /  
 alkoxy<(1-10)> / alkyl<(1-10)> (SR alkoxy<(1-10)>) /  
 alkoxyacarbonyl<(1-10)> / CONH2  
 G6 = COMe / 55 / 60 / 64 / 75 / 78 / 81 /  
 alkyl (SR (2) alkoxy) / 2-tetrahydrofuryl / CHPh2 / acyl /  
 alkanoyl / CPh (SO) / CH2Ph / Bu-t / CPh3 / 87 / 98 /  
 alkyl<(1-10)> (SR alkoxy<(1-10)>) / 100 / 104 / 105 /  
 2-tetrahydropyranyl / CONH2 / alkoxyacarbonyl<(1-10)> /  
 CO2Bu-t / CO2Me / R<TX "sulfur protecting group">

55 C(O)-CH2-OMe

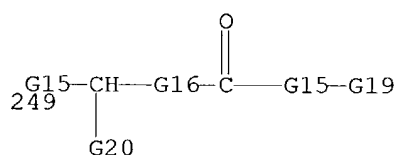
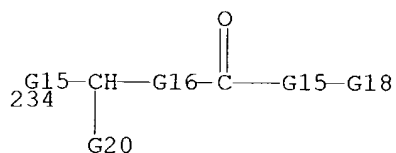
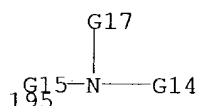
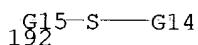
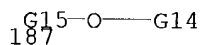
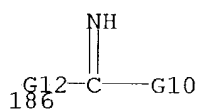
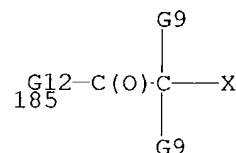
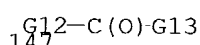
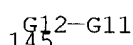
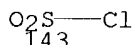
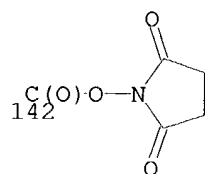
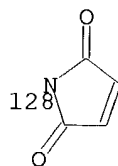
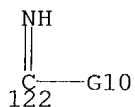
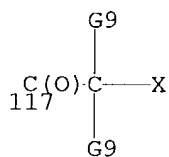
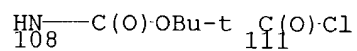


87 H2C-p-C6H4OMe

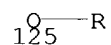


105 H3C-CH-OEt

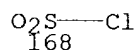
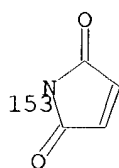
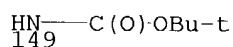
G7 = H / CHO / CO2H / OH / NH2 / 108 / 111 / 117 / 122 /  
 128 / 142 / NCO / NCS / OPh (SR (4) F) / 143 /  
 alkoxyaminocarbonyl / R / 145 / 147 / 185 / 186 / 187 / 192 /  
 195 / **234** / 249



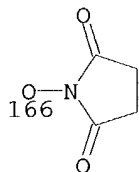
G9 = H / X  
G10 = OH / 125



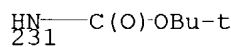
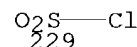
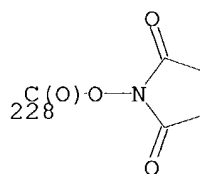
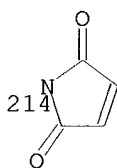
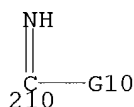
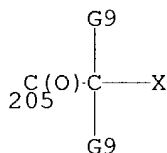
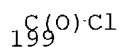
G11 = H / OH / NH<sub>2</sub> / 149 / 153 / NCO / NCS /  
OPh (SR (4) F) / 168 / R



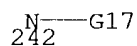
G12 = (1-10) CH<sub>2</sub>  
G13 = H / OH / Cl / 166 / alkoxyamino



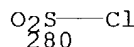
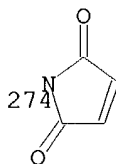
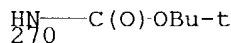
G14 = H / CHO / CO<sub>2</sub>H / OH / NH<sub>2</sub> / 231 / 199 / 205 / 210 /  
214 / 228 / NCO / NCS / OPh (SR (4) F) / 229 /  
alkoxyaminocarbonyl / R



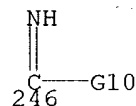
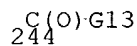
G15 = (0-10) CH<sub>2</sub>  
G16 = O / S / 242



G17 = H / alkyl<(1-10)> (SO OH) / OH / alkoxy<(1-10)> /  
alkyl<(1-10)> (SR alkoxy<(1-10)>) / alkoxy carbonyl<(1-10)> /  
CONH<sub>2</sub>  
G18 = H / OH / NH<sub>2</sub> / 270 / 274 / NCO / NCS /  
OPh (SR (4) F) / 280 / R



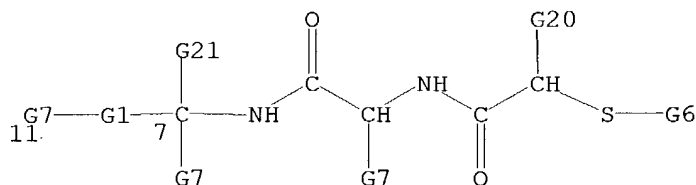
G19 = 244 / 246



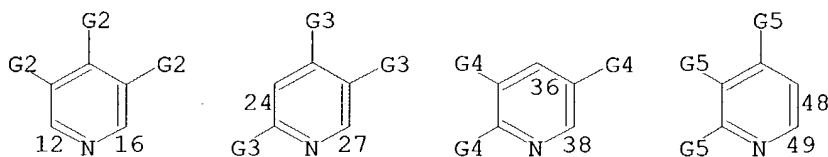
G20 = H / alkyl<(1-10)> (SO OH) / OH / alkoxy<(1-10)> /  
alkyl<(1-10)> (SR alkoxy<(1-10)>) / alkoxy carbonyl<(1-10)> /  
CONH<sub>2</sub>



G21 = H / R  
MPL: claim 1

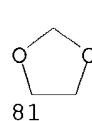
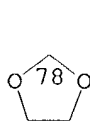
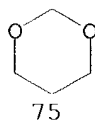
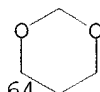
**MSTR 1B**

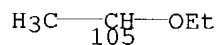
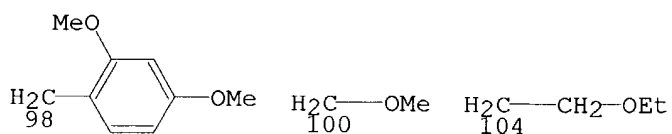
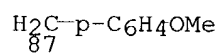
G1 = 16-7 12-11 / 27-7 24-11 / 38-7 36-11 / 49-7 48-11



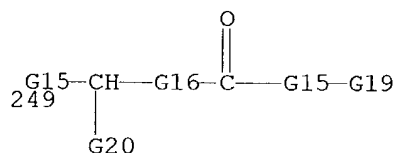
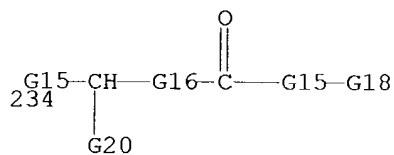
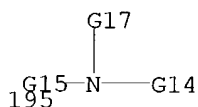
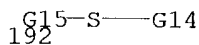
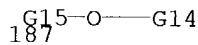
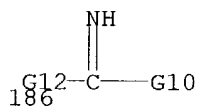
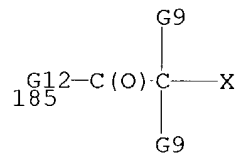
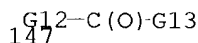
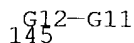
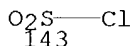
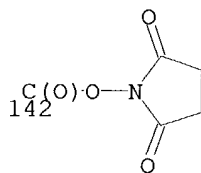
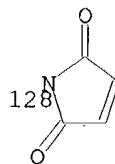
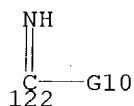
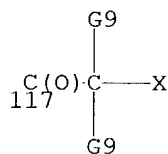
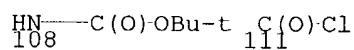
G2 = (2-) H / alkyl<(1-10)> (SO OH) / OH /  
alkoxy<(1-10)> / alkyl<(1-10)> (SR alkoxy<(1-10)>) /  
alkoxycarbonyl<(1-10)> / CONH2  
G3 = (2-) H / alkyl<(1-10)> (SO OH) / OH /  
alkoxy<(1-10)> / alkyl<(1-10)> (SR alkoxy<(1-10)>) /  
alkoxycarbonyl<(1-10)> / CONH2  
G4 = (2-) H / alkyl<(1-10)> (SO OH) / OH /  
alkoxy<(1-10)> / alkyl<(1-10)> (SR alkoxy<(1-10)>) /  
alkoxycarbonyl<(1-10)> / CONH2  
G5 = (2-) H / alkyl<(1-10)> (SO OH) / OH /  
alkoxy<(1-10)> / alkyl<(1-10)> (SR alkoxy<(1-10)>) /  
alkoxycarbonyl<(1-10)> / CONH2  
G6 = COMe / 55 / 60 / 64 / 75 / 78 / 81 /  
alkyl (SR (2) alkoxy) / 2-tetrahydrofuryl / CHPh2 / acyl /  
alkanoyl / CPh (SO) / CH2Ph / Bu-t / CPh3 / 87 / 98 /  
alkyl<(1-10)> (SR alkoxy<(1-10)>) / 100 / 104 / 105 /  
2-tetrahydropyranyl / CONH2 / alkoxycarbonyl<(1-10)> /  
CO2Bu-t / CO2Me / R<TX "sulfur protecting group">

55 C(O)CH<sub>2</sub>-OMe

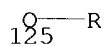




G7 = H / CHO / CO<sub>2</sub>H / OH / NH<sub>2</sub> / 108 / 111 / 117 / 122 /  
 128 / 142 / NCO / NCS / OPh (SR (4) F) / 143 /  
 alkoxyaminocarbonyl / R / 145 / 147 / 185 / 186 / 187 / 192 /  
 195 / **234** / 249

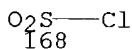
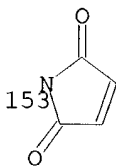


G9 = H / X  
 G10 = OH / 125



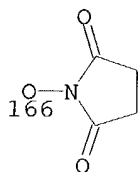
G11 = H / OH / NH<sub>2</sub> / 149 / 153 / NCO / NCS /  
Oph (SR (4) F) / 168 / R

HN—C(O)·OBu-t  
149



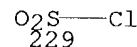
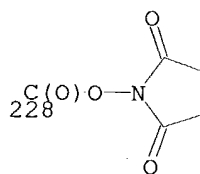
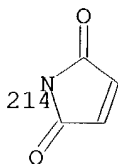
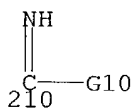
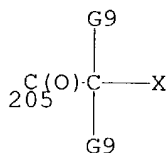
G12 = (1-10) CH<sub>2</sub>

G13 = H / OH / Cl / 166 / alkoxyamino



G14 = H / CHO / CO<sub>2</sub>H / OH / NH<sub>2</sub> / 231 / 199 / 205 / 210 /  
214 / 228 / NCO / NCS / Oph (SR (4) F) / 229 /  
alkoxyaminocarbonyl / R

C(O)Cl  
199



HN—C(O)·OBu-t  
231

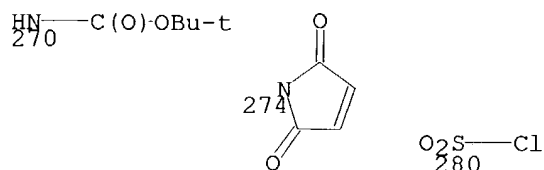
G15 = (0-10) CH<sub>2</sub>

G16 = O / S / 242

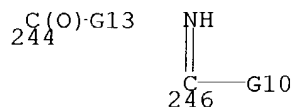
N—G17  
242

G17 = H / alkyl<(1-10)> (SO OH) / OH / alkoxy<(1-10)> /  
alkyl<(1-10)> (SR alkoxy<(1-10)>) / alkoxy carbonyl<(1-10)> /  
CONH<sub>2</sub>

G18 = H / OH / NH<sub>2</sub> / 270 / 274 / NCO / NCS /  
Oph (SR (4) F) / 280 / R



G19 = 244 / 246



G20 = H / alkyl<(1-10)> (SO OH) / OH / alkoxy<(1-10)> /  
 alkyl<(1-10)> (SR alkoxy<(1-10)>) / alkoxycarbonyl<(1-10)> /  
 CONH2

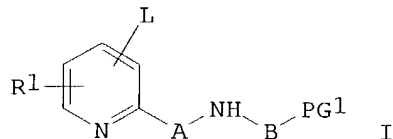
G21 = H / R

MPL: claim 1

ACCESSION NUMBER: 119:278760 MARPAT  
 TITLE: Radiolabeled peptide compounds for imaging and therapy  
 INVENTOR(S): Lyle, Leon; Rajagopalan, Raghavan; Deutsch, Karen;  
 Dunn, Thomas Jeffrey; Srinivasan, Ananthachari;  
 Vanderheyden, J. L.  
 PATENT ASSIGNEE(S): Mallinckrodt Medical, Inc., USA  
 SOURCE: PCT Int. Appl., 63 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 4  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9315770	A1	19930819	WO 1993-US939	19930204
W: AU, CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5371184	A	19941206	US 1992-831780	19920205
US 5382654	A	19950117	US 1992-831724	19920205
AU 9336067	A1	19930903	AU 1993-36067	19930204
EP 642357	A1	19950315	EP 1993-904844	19930204
EP 642357	B1	20010725		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, NL, PT, SE				
JP 08504166	T2	19960507	JP 1993-514154	19930204
EP 1099693	A1	20010516	EP 2000-204594	19930204
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE				
AT 203417	E	20010815	AT 1993-904844	19930204
US 5753205	A	19980519	US 1995-372547	19950113
PRIORITY APPLN. INFO.:				
			US 1992-831724	19920205
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			US 1993-13527	19930204
			EP 1993-904844	19930204
			WO 1993-US939	19930204

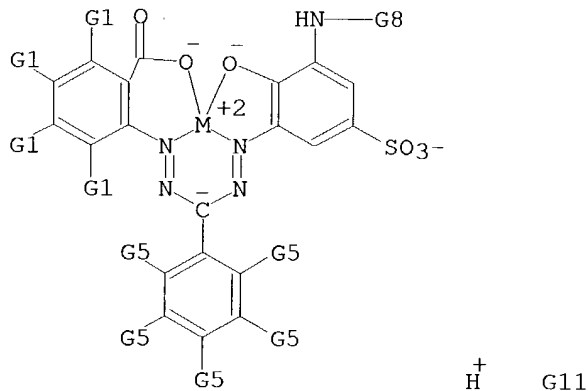
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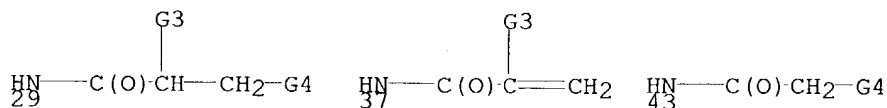
AB A somatostatin or hirudin peptide, or a peptide with somatostatin receptor- or hirudin receptor-binding specificity, is conjugated to a pyridine derivative I [R1 = H, OH, alkyl, alkoxy, hydroxyalkyl, carbamoyl, etc.; L = H, (CH2)mEX, etc.; E = O, S, R1, bond; X = H, OH, NH2, CHO, CO2H, etc.; m = 0-10; A = CLR1, CHR1CLR1; B = COCHLNHCOCHR1, etc.; PG1 = Ac, S-acyl, alkoxyalkyl, alkoxyalkoxycarbonyl, etc.] chelated with a radionuclide (e.g. 99mTc) for use in diagnostic imaging and radiotherapy of tumors and (for hirudin) imaging of blood clots. Thus, 2-aza-4-[N-(S-benzoyl)mercaptoacetyl-8-[N-(t-butoxy)carbonyl]amino-3-oxo-1-(2-pyridyl)octane was prepared by reaction of 4-amino-2-aza-8-[N-(t-butoxy)carbonyl]amino-3-oxo-1-(2-pyridyl)octane with N-(S-benzoyl)mercaptoacetoxysuccinimide at ambient temperature. The product was conjugated with somatostatin, complexed with 99mTc by reaction with SnCl2 and 99mTcO4-, and lyophilized.

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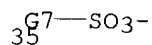
# MSTR 1



G1 = (2-) H / (-1) G2 / (-2) carboxylate  
 G2 = sulfonate / NHCOMe / 29 / 37 / 43



G3 = H / Cl / Br  
 G4 = Cl / Br / 35

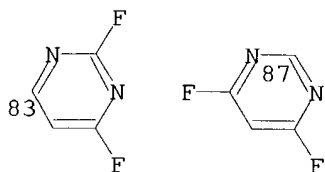


G5 = (3-) H / (-1) G6 / (-1) G10

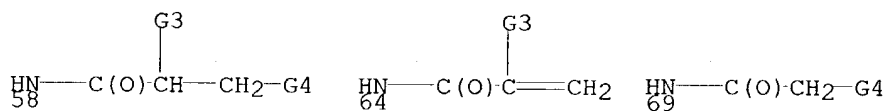
G6 = X / alkyl<(1-4)> / alkoxy<(1-4)> / **carboxylate** / sulfonate / (SC Me / OMe / Cl)

G7 = O / **S**

G8 = 83 / 87



G10 = carboxylate / sulfonate / NHCOMe / 58 / 64 / **69**

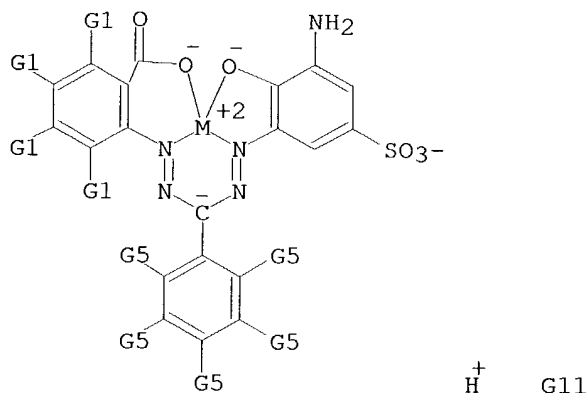


G11 = Cu

DER: and salts

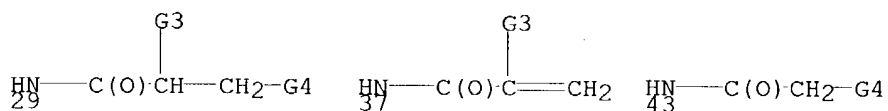
MPL: claim 1

## MSTR 2



G1 = (2-) H / (-1) G2 / (-2) carboxylate

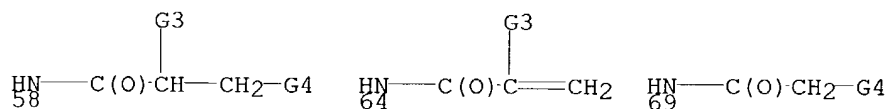
G2 = sulfonate / NHCOMe / 29 / 37 / 43



G3 = H / Cl / Br  
 G4 = Cl / Br / 35

$\text{}_{35}^{\text{G7}}\text{---SO}_3\text{---}$

G5 = (3-) H / (-1) G6 / (-1) G10  
 G6 = X / alkyl<(1-4)> / alkoxy<(1-4)> / **carboxylate** /  
 sulfonate / (SC Me / OMe / Cl)  
 G7 = O / **s**  
 G10 = carboxylate / sulfonate / NHCOMe / 58 / 64 / **69**

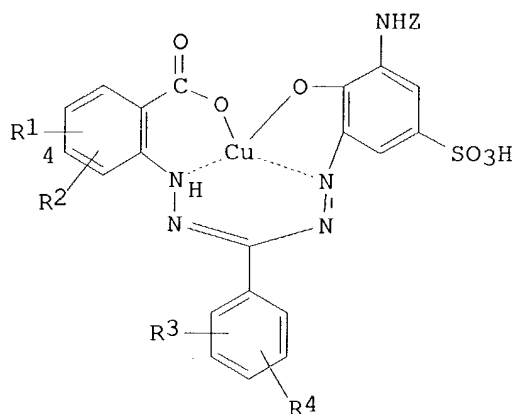


G11 = Cu  
 MPL: claim 9

ACCESSION NUMBER: 119:228028 MARPAT  
 TITLE: Fiber-reactive formazan dyes, their preparation and use  
 INVENTOR(S): Gisler, Markus; Wald, Roland  
 PATENT ASSIGNEE(S): Sandoz Ltd., Switz.  
 SOURCE: Brit. UK Pat. Appl., 16 pp.  
 CODEN: BAXXDU  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2262532	A1	19930623	GB 1992-26230	19921216
GB 2262532	B2	19950426		
DE 4241918	A1	19930624	DE 1992-4241918	19921211
CH 684483	A	19940930	CH 1992-3834	19921216
FR 2685343	A1	19930625	FR 1992-15353	19921217
FR 2685343	B1	19950217		
JP 07188573	A2	19950725	JP 1992-338343	19921218
US 5491221	A	19960213	US 1994-247154	19940520
PRIORITY APPLN. INFO.:			DE 1991-4142126	19911220
			US 1992-992980	19921218
			US 1993-128448	19930928

GI

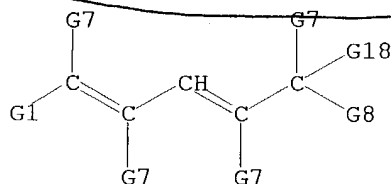


I

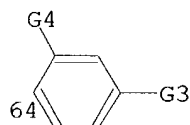
AB The dyes are represented in the acid form as I ( $R_1 = H, CO_2H$ ;  $R_2, R_3 = H, CO_2H, SO_3H, NHAc, NHCOCR_5CH_2R_6, NHCOCR_5:CH_2, NHCORCH_2R_6$ ;  $R_4 = H, \text{halogen, Cl-4 alkyl, Cl-4 alkoxy, } CO_2H, SO_3H$ ;  $R_5 = H, Cl, Br$ ;  $R_6 = Cl, Br, OSO_3H, SSO_3H$ ;  $Z = \text{difluoropyrimidinyl}$ ) and are prepared by reaction of I ( $Z = H$ ) with 2,4,6-trifluoropyrimidine (II). Thus, I ( $R_1 = R_3 = R_4 = Z = H, R_2 = 4-SO_3H$ ) was stirred overnight with II in water at pH 8 to give the corresponding formazan dye, fast blue on cotton.

L23 ANSWER 29 OF 31 MARPAT COPYRIGHT 2004 ACS on STN  
(ALL HITS ARE ITERATION INCOMPLETES)

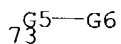
**MSTR 1B ITERATION INCOMPLETE**



G1 = aryl (SR (1-) G2) / (EX 64)

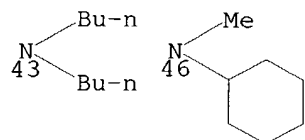


G2 = (1-)  $NH_2$  (SO) / R / (EX alkyl / alkoxy / aryloxy / X /  $NO_2$  / CN / 73 / alkylthio / arylsulfonyl / Ph)





G3 = NMe2 / NEt2 / 43 / 46 / pyrrolidino



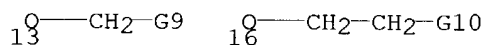
G4 = H / OEt / Me / Cl

G5 = C(O) / SO2

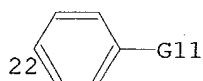
G6 = NH2 (SR) / OH (SR)

G7 = H / R

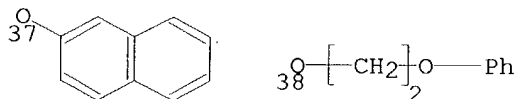
G8 = alkoxy (SR (1-) G12) / (EX 13 / 16)



G9 = 22 / 4-pyridyl

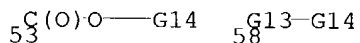


G10 = OPh / Ph / 37 / 38 / SPh

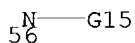


G11 = H / Cl / Me

G12 = aryl / R / (EX 58 / 53)



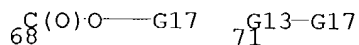
G13 = O / S / S(O) / SO2 / C(O) / NH / 56



G14 = alkyl (SO (1-) G16) / aryl

G15 = alkyl / aryl / acyl

G16 = aryl / R / (EX 68 / 71)

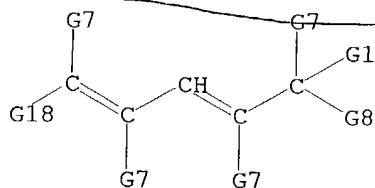


G17 = alkyl (SO) / aryl

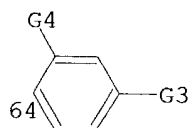
G18 = Hy (SR (1-) G2)

MPL: claim 1

MSTR 1C ITERATION INCOMPLETE



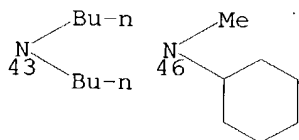
G1 = aryl (SR (1-) G2) / (EX 64)



G2 = (1-) NH2 (SO) / R / (EX alkyl / alkoxy / aryloxy / X / NO2 / CN / 73 / alkylthio / arylsulfonyl / Ph)

<sup>G5</sup><sub>73</sub>—G6

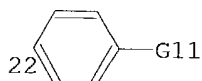
G3 = NMe2 / NEt2 / 43 / 46 / pyrrolidino



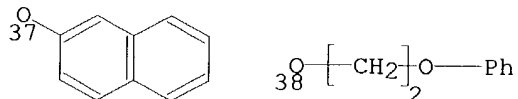
G4 = H / OEt / Me / Cl  
 G5 = C(O) / SO2  
 G6 = NH2 (SR) / OH (SR)  
 G7 = H / R  
 G8 = alkoxy (SR (1-) G12) / (EX 13 / 16)

<sup>O</sup><sub>13</sub>—CH<sub>2</sub>—G9    <sup>O</sup><sub>16</sub>—CH<sub>2</sub>—CH<sub>2</sub>—G10

G9 = 22 / 4-pyridyl



G10 = OPh / Ph / 37 / 38 / SPh



G11 = H / Cl / Me  
 G12 = aryl / R / (EX 58 / 53)

$\text{C}(\text{O})\text{O} \text{---} \text{G14}$   $\text{G13} \text{---} \text{G14}$   
 53 58

G13 = O / S / S(O) / SO2 / C(O) / NH / 56

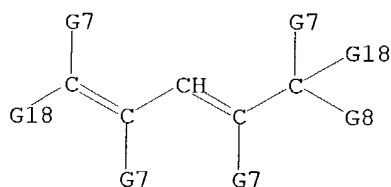
$\text{N} \text{---} \text{G15}$   
 56

G14 = alkyl (SO (1-) G16) / aryl  
 G15 = alkyl / aryl / acyl  
 G16 = aryl / R / (EX 68 / 71)

$\text{C}(\text{O})\text{O} \text{---} \text{G17}$   $\text{G13} \text{---} \text{G17}$   
 68 71

G17 = alkyl (SO) / aryl  
 G18 = Hy (SR (1-) G2)  
 MPL: claim 1

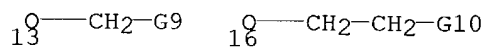
**MSTR 1D ITERATION INCOMPLETE**



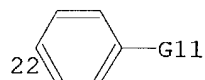
G2 = (1-) NH2 (SO) / R / (EX alkyl / alkoxy / aryloxy /  
 X / NO2 / CN / 73 / alkylthio / arylsulfonyl / Ph)

$\text{G5} \text{---} \text{G6}$   
 73

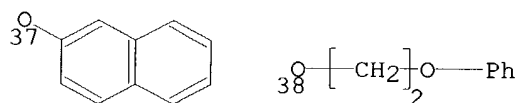
G5 = C(O) / SO2  
 G6 = NH2 (SR) / OH (SR)  
 G7 = H / R  
 G8 = alkoxy (SR (1-) G12) / (EX 13 / 16)



G9 = 22 / 4-pyridyl

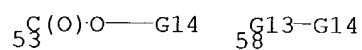


G10 = OPh / Ph / 37 / 38 / SPh

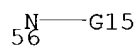


G11 = H / Cl / Me

G12 = aryl / R / (EX 58 / 53)



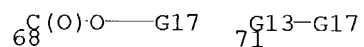
G13 = O / S / S(O) / SO2 / C(O) / NH / 56



G14 = alkyl (SO (1-) G16) / aryl

G15 = alkyl / aryl / acyl

G16 = aryl / R / (EX 68 / 71)

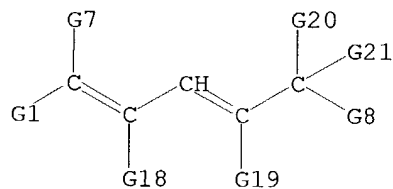


G17 = alkyl (SO) / aryl

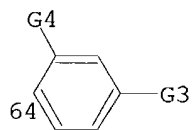
G18 = Hy (SR (1-) G2)

MPL: claim 1

**MSTR 1F ITERATION INCOMPLETE**



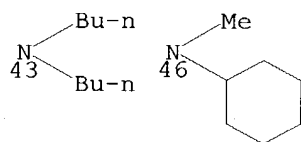
G1 = aryl (SR (1-) G2) / (EX 64)



G2 = (1-) NH2 (SO) / R / (EX alkyl / alkoxy / aryloxy /  
X / NO2 / CN / 73 / alkylthio / arylsulfonyl / Ph)

<sup>G5</sup><sub>73</sub>—G6

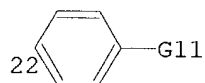
G3 = NMe2 / NEt2 / 43 / 46 / pyrrolidino



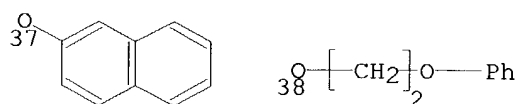
G4 = H / OEt / Me / Cl  
G5 = C(O) / SO2  
G6 = NH2 (SR) / OH (SR)  
G7 = H  
G8 = alkoxy (SR (1-) G12) / (EX 13 / 16)

<sup>O</sup><sub>13</sub>—CH<sub>2</sub>—G9    <sup>O</sup><sub>16</sub>—CH<sub>2</sub>—CH<sub>2</sub>—G10

G9 = 22 / 4-pyridyl



G10 = OPh / Ph / 37 / 38 / SPh



G11 = H / Cl / Me  
G12 = aryl / R / (EX 58 / 53)

<sup>C(O)O</sup><sub>53</sub>—G14    <sup>G13</sup><sub>58</sub>—G14

G13 = O / S / S(O) / SO2 / C(O) / NH / 56

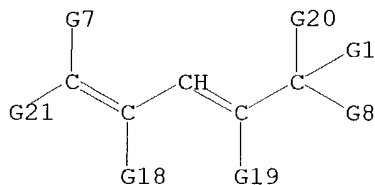
N—G15  
56

G14 = alkyl (SO (1-) G16) / aryl  
G15 = alkyl / aryl / acyl  
G16 = aryl / R / (EX 68 / 71)

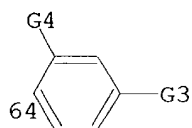
C(O)O—G17 G13—G17  
68 71

G17 = alkyl (SO) / aryl  
G18 = H  
G19 = H  
G20 = H  
G21 = Hy (SR (1-) G2)  
G7 +G18= R<TX "ring moiety">  
G18+G19= R<TX "ring moiety"> / (EX CH2CH2CH2)  
G19+G20= R<TX "ring moiety">  
MPL: claim 1

**MSTR 1G ITERATION INCOMPLETE**



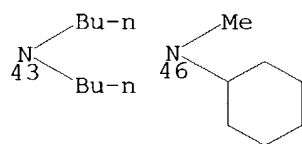
G1 = aryl (SR (1-) G2) / (EX 64)



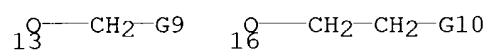
G2 = (1-) NH2 (SO) / R / (EX alkyl / alkoxy / aryloxy /  
X / NO2 / CN / 73 / alkylthio / arylsulfonyl / Ph)

G5—G6  
73

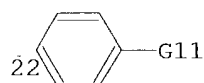
G3 = NMe2 / NEt2 / 43 / 46 / pyrrolidino



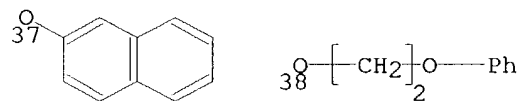
G4 = H / OEt / Me / Cl  
 G5 = C(O) / SO<sub>2</sub>  
 G6 = NH<sub>2</sub> (SR) / OH (SR)  
 G7 = H  
 G8 = alkoxy (SR (1-) G12) / (EX 13 / 16)



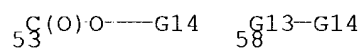
G9 = 22 / 4-pyridyl



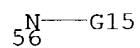
G10 = OPh / Ph / 37 / 38 / SPh



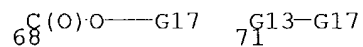
G11 = H / Cl / Me  
 G12 = aryl / R / (EX 58 / 53)



G13 = O / S / S(O) / SO<sub>2</sub> / C(O) / NH / 56



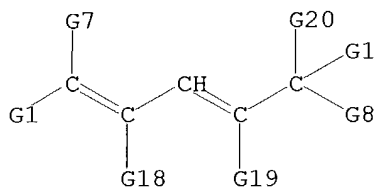
G14 = alkyl (SO (1-) G16) / aryl  
 G15 = alkyl / aryl / acyl  
 G16 = aryl / R / (EX 68 / 71)



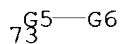
G17 = alkyl (SO) / aryl  
 G18 = H  
 G19 = H  
 G20 = H

G21 = Hy (SR (1-) G2)  
 G7 + G18 = R<TX "ring moiety">  
 G18 + G19 = R<TX "ring moiety"> / (EX CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>)  
 G19 + G20 = R<TX "ring moiety">  
 MPL: claim 1

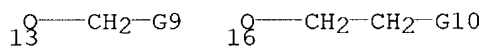
**MSTR 1H ITERATION INCOMPLETE**



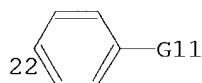
G1 = Hy (SR (1-) G2)  
 G2 = (1-) NH<sub>2</sub> (SO) / R / (EX alkyl / alkoxy / aryloxy /  
 X / NO<sub>2</sub> / CN / 73 / alkylthio / arylsulfonyl / Ph)



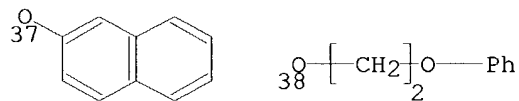
G5 = C(O) / SO<sub>2</sub>  
 G6 = NH<sub>2</sub> (SR) / OH (SR)  
 G7 = H  
 G8 = alkoxy (SR (1-) G12) / (EX 13 / 16)



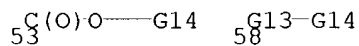
G9 = 22 / 4-pyridyl



G10 = OPh / Ph / 37 / 38 / SPh



G11 = H / Cl / Me  
 G12 = aryl / R / (EX 58 / 53)





G13 = O / S / S(O) / SO2 / C(O) / NH / 56

$\text{N} \text{---} \text{G15}$   
56

G14 = alkyl (SO (1-) G16) / aryl

G15 = alkyl / aryl / acyl

G16 = aryl / R / (EX 68 / 71)

$\text{C}(\text{O})\text{O} \text{---} \text{G17}$   $\text{G13} \text{---} \text{G17}$   
68 71

G17 = alkyl (SO) / aryl

G18 = H

G19 = H

G20 = H

G7 +G18= R<TX "ring moiety">

G18+G19= R<TX "ring moiety"> / (EX CH2CH2CH2)

G19+G20= R<TX "ring moiety">

MPL: claim 1

ACCESSION NUMBER: 116:13416 MARPAT

TITLE: Pressure- and heat-sensitive recording materials with good sensitivity, storability and image stability

INVENTOR(S): Sano, Masajiro; Takashima, Masanobu; Satomura, Masato

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

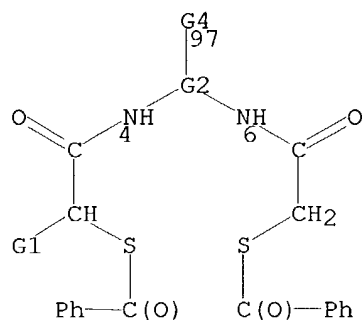
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03142277	A2	19910618	JP 1989-282319	19891030
PRIORITY APPLN. INFO.:			JP 1989-282319	19891030

AB The title materials utilizes coloration by contact between electron-donating leuco dye Ar1R1CH:CR2:CH:CHR3CR4R5Ar2 (Ar1, Ar2 = amine residue-containing aryl or heterocyclic group; R1-4 = H, monovalent group; R5 = aryl group-containing alkoxy group; R1-4 may bond together forming 4- to 12-membered rings with or without containing heteroatom) and electron-accepting compound

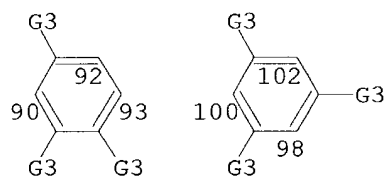
L23 ANSWER 30 OF 31 MARPAT COPYRIGHT 2004 ACS on STN

MSTR 4B

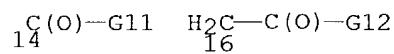


G1 = H / alkoxycarbonyl<(1-4)>

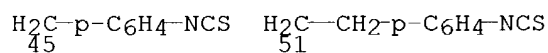
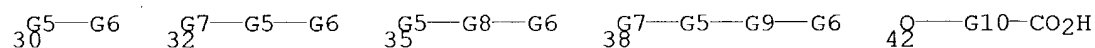
G2 = 90-4 93-6 92-97 / 90-6 93-4 92-97 /  
90-4 92-6 93-97 / 90-6 92-4 93-97 / 100-4 102-6 98-97



G3 = H / 14 / 16



G4 = R<TX "group capable of reacting with peptides or  
binding with a divalent bridging group"> / (EX 30 / 32 /  
NCS / NCO / 35 / 38 / 42 / 45 / 51)



G5 = alkylene<(1-6)>

G6 = NCS / NCO / CO2H

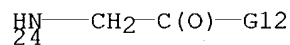
G7 = O / NH

G8 = phenylene

G9 = phenylene

G10 = (2-6) CH2

G11 = alkoxy<(1-4)> / NH2 / 24



G12 = alkoxy<(1-4)>

MPL: claim 6

ACCESSION NUMBER: 115:35713 MARPAT  
 TITLE: Labeled peptide drug compounds with chelating agents  
 INVENTOR(S): Albert, Rainer; Bauer, Wilfried; Pless, Janos  
 PATENT ASSIGNEE(S): Sandoz-Erfindungen Verwaltungsgesellschaft m.b.H.,  
 Austria; Sandoz-Patent-G.m.b.H.; Sandoz A.-G.  
 SOURCE: PCT Int. Appl., 68 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

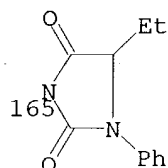
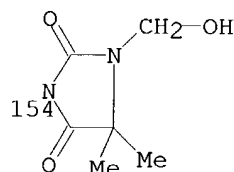
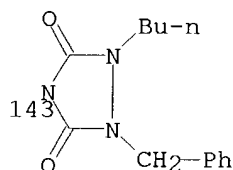
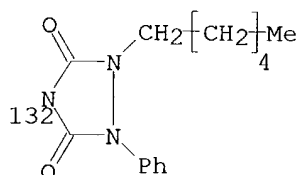
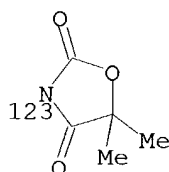
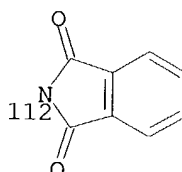
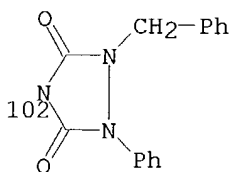
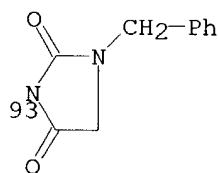
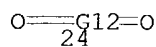
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9101144	A1	19910207	WO 1990-EP1169	19900712
W: AU, CA, FI, HU, JP, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, IT, LU, NL, SE				
CA 2032499	AA	19910121	CA 1990-2032499	19900712
CA 2032499	C	20020514		
AU 9060709	A1	19910222	AU 1990-60709	19900712
AU 638043	B2	19930617		
EP 436005	A1	19910710	EP 1990-911595	19900712
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE				
HU 56583	A2	19910930	HU 1990-6177	19900712
HU 219336	B	20010328		
JP 04500823	T2	19920213	JP 1990-510843	19900712
IL 95118	A1	19950124	IL 1990-95118	19900718
US 5686410	A	19971111	US 1994-276280	19940718
US 2003198598	A1	20031023	US 2003-373371	20030224
PRIORITY APPLN. INFO.:				
			GB 1989-16597	19890720
			GB 1990-4258	19900226
			GB 1990-5295	19900309
			WO 1990-EP1169	19900712
			US 1991-671763	19910318
			US 1993-17723	19930216
			US 1993-107723	19930820
			US 1994-276280	19940718
			US 1997-905929	19970805
			US 2000-604211	20000627

AB Chelating agents are linked to amino groups of biol.-active peptides (growth factors, hormones, interferons, cytokines), the amino groups having no binding affinity to target receptors. Complexes formed by the above modified peptides are useful as drugs or in-vivo diagnostic agents. The chelating agents (Markush structures given) are EDTA, DTPA, DOTA, etc. A solution of H<sub>2</sub>NCH<sub>2</sub>CH<sub>2</sub>CO<sub>2</sub>Me.HCl and NaHCO<sub>3</sub> in water was treated with DTPA dianhydride, followed by pH adjustment to 3 with HCl and then to 5.5 with NaOH, to give DTPA-HNCH<sub>2</sub>CH<sub>2</sub>CO<sub>2</sub>Me, which was treated with hydrazine hydrate in MeOH. The resulting DTPA-NHCH<sub>2</sub>CH<sub>2</sub>CONHNH<sub>2</sub> was converted into an azide and coupled with mEGF, to give DTPA-β-Ala-mEGF, which was used for complexing <sup>111</sup>InCl<sub>3</sub>. The product showed high-affinity binding to EGF receptors of human tumors, in vitro.

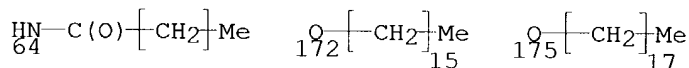
L23 ANSWER 31 OF 31 MARPAT COPYRIGHT 2004 ACS on STN

MSTR 1





G12 = Hy<RC (1), RS (0-) E5 (0-) E6 (0) OTHER,  
EC (1-) N (2-) C, AN (1-) N (2-) C> (SO)  
G13 = **phenylene (SR (1-) G2)**  
G14 = 172 / Me / 175 / Cl / OMe / 64



MPL: claim 1

ACCESSION NUMBER: 109:180355 MARPAT  
TITLE: Silver halide color photographic material containing a novel yellow coupler with good developability  
INVENTOR(S): Tsuruta, Mayumi; Mizukura, Noboru; Nakagawa, Satoshi  
PATENT ASSIGNEE(S): Konica Co., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63094238	A2	19880425	JP 1986-240060	19861008
PRIORITY APPLN. INFO.:			JP 1986-240060	19861008
GI For diagram(s), see printed CA Issue.				
AB The claimed photog. material comprising a substrate and $\geq 1$ Ag				

halide emulsion layer(s) contains in  $\geq 1$  of the emulsion layer(s) a coupler of the formula I (R = tert-Bu, aryl; R1 = group capable of substituting in the benzene ring; R2 = H, alkyl, aryl, heterocyclic group; Z = alkylene, cycloalkylene, arylene, alkylene-arylene, arylene-alkylene, Z1Z2Z3; Z1, Z3 = alkylene, arylene, alkylenarylene arylenealkylene; Z2 = bivalent linkage; R3 = alkyl, cycloalkyl, aryl, heterocyclic ring; A = 5- or 6-membered ring). The coupler is a 2-equivalent yellow coupler having excellent color developability and less susceptible to the variation of developer pH, and also with low tendency of fog generation. Thus, an exptl. color paper with Ag(Br, Cl) emulsion layer in which the coupler II of the present invention was incorporated had the mentioned advantages.

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